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Progress Through Partnership

Institute for Medicaid Management

Conference Report: Medicaid and the Health Care Provider—A Partnership

December 12-15, 1977

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THE HEALTH CARE FINANCING ADMINISTRATION
Medicaid Bureau

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MEDICAID AND THE HEALTH CARE PROVIDER: A PARTNERSHIP

Conference Report

Sponsored by

The Institute for Medicaid Management
Medicaid Bureau (MMB)
Health Care Financing Administration
Department of Health, Education, and Welfare

Orlando, Florida
December 12-15, 1977

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PREFACE

The Institute for Medicaid Management sponsored this national conference on "Medicaid and the Health Care Provider: A Partnership" at the International Holiday Inn in Orlando, Florida, December 12-15, 1977. This conference provided a forum for State Medicaid agencies and health care providers to discuss, on a national level, points of mutual interest in increasing the efficiency of the Medicaid program.

The issues of rising costs, inappropriate care, fraud and abuse, and provider dissatisfaction are not isolated problems but are all interrelated. Such problems can only be overcome through the development of an effective partnership between the private and government sectors operating within the framework of the Federal-State Medicaid program. This conference represents an important first step toward building an effective public and private partnership in this area.

The main thrust of the conference was discussion and development of approaches and mechanisms to allow effective health care provider input into Medicaid policy formulation. Other major topics discussed were the impact of Professional Standards Review Organizations and the effects of cost containment on quality health care.

Overall attendance at the conference was 220 individuals representing a mix of the public and private sectors. Representatives from more than 30 States were joined by 40 Federal Medicaid Central and Regional Office personnel in discussions with 57 representatives of various national provider organizations and medical groups. The atmosphere was that of enthusiastic debate and cooperation, with a hopeful look to the future that action will be taken on the ideas discussed.

This report is a compilation of the majority of presentations made at the conference.

AGENDA

MEDICAID AND THE HEALTH CARE PROVIDER: A PARTNERSHIP

December 12-15, 1977

International Holiday Inn
Orlando, Florida

Monday, December 12, 1977

2:00 PM - 5:00 PM	REGISTRATION
5:00 PM - 5:30 PM	Opening Remarks Lawrence Levinson Acting Director Institute for Medicaid Management Perspective on the Partnership Elsie Tytla, M.D. Medical Advisor Medicaid Bureau/HCFA
5:30 PM - 6:30 PM	Medicaid and the Health Care Provider: Different Perspectives Paul R. Willging, Ph.D. Acting Director Medicaid Bureau/HCFA Gerald Reilly Deputy Commissioner New Jersey Department of Human Services Robert Shackelford, M.D. Vice-Speaker, House of Delegates American Academy of Family Physicians

Monday, December 12, 1977 (continued)

6:30 PM - 7:30 PM	COCKTAILS
7:30 PM - 8:30 PM	Dinner and Speaker: Introductory Remarks Virginia Smyth Acting Regional Administrator HCFA/Region IV (Atlanta) "Public Health Programs: The Provider and Government Partnership" William Fullerton Deputy Administrator Health Care Financing Administration/DHEW

Tuesday, December 13, 1977

8:00 AM - 4:00 PM	REGISTRATION
8:00 AM - 11:30 AM	Module I Policy Formulation - A Partnership Process The goal of this module is to identify the elements of a "good" State/Provider partnership and to highlight the benefits to be gained by all parties.
8:00 AM - 9:00 AM	Panel Discussion The Partnership Process in Michigan Moderator: Robert C. Bonhag, DMD, MHA Director Michigan Bureau of Medical Assistance Laurence Drost, Director Medical Information Division Michigan Medical Society

Tuesday, December 13, 1977 (continued)

Panel Discussion (continued)

Bruce Ambrose, Manager
Division of Governmental Relations
Michigan State Medical Society

Sherry Wellman
Governmental Agency Liaison
Michigan State Medical Society

Paul Shaheen
Assistant Director for
Government Affairs
Michigan Hospital Association

9:10 AM - 11:30 AM

Policy Formulation
Workshops

In each workshop, a State will present its approach to establishing a working partnership with the providers, focusing on such questions as:

--How do providers input into the policy formulation process?

--What is the impact of provider participation in this process?

Workshop A: New Jersey

Thomas M. Russo, Acting Director
Division of Medical Assistance
and Health Services

Harvey J. Shwed, M.D., Chairman
Medicaid Committee
New Jersey Medical Society

James E. Cunningham, President
New Jersey Association of
Health Care Facilities

Wilfred I. Myers, Associate General
Manager
The Prudential Insurance Company of
America

Tuesday, December 13, 1977 (continued)

Workshop B: Minnesota

Thomas Gaylord, Chief
S/UR Unit
Minnesota Medical Assistance
Program

Brad Stoneking, Chief
Invoice Processing
Minnesota Medical Assistance
Program

John Regan, M.D.
Committee on Medical Services
Minnesota Medical Association

Roland O. Leuzinger, R.Ph., President
Minnesota Pharmaceutical Association

Workshop C: Utah

Neil Christensen, Director
Office of Medical Services

James Cannon
Director of Planning and Analysis
Utah PSRO

Richard Bigelow, M.D.
Medical Director of Ambulatory
Care Project
Utah PSRO

Workshop D: Iowa

Pennie Bjornstad, Chief
Medical Services Section

Rollin Bridge, President
Iowa Pharmaceutical Association

Tuesday, December 13, 1977 (continued)	Workshop D: Iowa (continued)
	Ronald Simmons Senior Vice-President in Charge of Operations for Blue Cross/ Blue Shield
	Workshop E
	The Medicaid Program: An Orientation at the Federal Level
	Robert Silva Acting Assistant Director for State Operations
10:00 AM - 10:30 AM	COFFEE BREAK
11:30 AM - 2:30 PM	MIDDAY BREAK
2:30 PM - 6:30 PM	Module II
	PSROs and their impact on and relationship with the Medicaid program
	This session and its related workshops will illustrate the problems encountered in building an effective relationship between the State and PSRO and the approaches that have been taken to solve these problems.
2:30 PM - 3:30 PM	Panel Discussion
	Medicaid Interaction with PSRO Moderator: Michael Goran, M.D. Acting Associate Administrator for Health Standards and Quality, HCFA

Tuesday, December 13, 1977 (continued)

Panel Discussion (continued)

Jack Kent
Assistant Secretary for
Medical Programs
Maryland Department of Health
and Mental Hygiene

John Busmann, M.D., Director
Multnomah Foundation for
Medical Care

Alvin Ankrum
Executive Director
Baltimore City PSRO

Linda Kaiser, Administrator
Adult and Family Services
Division
Oregon Department of Human
Resources

3:40 PM - 4:50 PM

Workshop A

PSRO Linkages with the State
Medicaid Program

Jack Kent
Assistant Secretary for Medical
Programs
Maryland Department of Health
and Mental Hygiene

Alvin Ankrum
Executive Director
Baltimore City PSRO

Mark H. Taybak
Executive Director
Maryland Statewide PSR Council

Rhoda Abrams, Director
Office of Program Development
Health Standards and Quality
Bureau, HCFA

Tuesday, December 13, 1977 (continued)

Workshop B

Data Issues Relating to PSRO

Jimmie Mangus, M.D.
Medical Director
Division of Medical Services
West Virginia Department of Welfare

Betty Kirkwood, Executive Director
West Virginia Medical Institute, Inc.

Frank Sohmer, M.D.
Board of Directors
American Association of PSROs

Workshop C

Utah PACE Demonstration Project

James Cannon
Utah PSRO

Richard Bigelow, M.D.
Medical Director
Utah PSRO Ambulatory Care Project

Leslie Ford, M.D.
Health Standards and Quality
Bureau, HCFA

Workshop D

Legal Issues Relating to PSRO

Gerald Reilly, Deputy Commissioner
N.J. Department of Human Services

Mark Allen, Executive Director
Essex Physicians Review Organizations

Larry Sobel, Legal Analyst
Health Standards and Quality
Bureau, HCFA

Tuesday, December 13, 1977 (continued)

Workshop E

Massachusetts Second Opinion Program

Karen Quigley
Director of Hospital Programs
Massachusetts Department of Welfare

Debra Stackpole, RN
Assistant Director
Bay State Health Care Foundation

Gary Lapidus, Assistant Director
Central Massachusetts Health
Care Foundation

4:50 PM - 5:15 PM — COFFEE BREAK

5:15 PM - 6:30 PM — Workshops

Same as listed above in Module II

Wednesday, December 14, 1977

8:00 AM - 4:00 PM — REGISTRATION

8:00 AM - 12:30 PM — Module III

Quality Care and Cost Containment - How can the partnership improve quality while containing costs?

A discussion of these questions will provide insight into current and future medical practices as they evolve in response to changing community needs, public concerns and government controls.

Wednesday, December 14, 1977 (continued)

Module III (continued)

8:00 AM - 9:20 AM — Panel Discussion

The Relationship of Quality Care and Cost Containment
Moderator: Elsie Tytla, M.D.
Medical Advisor
Medicaid Bureau/HCFA

Richard Schmidt, M.D., President
American College of Obstetricians and Gynecologists

Edward Carels, Ph.D
Director of Research
Health Care Management Systems

Donald R. Hayes, M.D.
American Medical Association
Council on Medical Services and Commission on Cost of Medical Care

Richard Bouchard, M.D.
Professor of Medicine
University of Vermont
Given Health Care Center

9:30 AM - 10:50 AM — Workshop A

How can changes in professional school training influence quality and cost containment?

Mohan L. Garg, M.D.
Professor of Community Medicine
Medical College of Ohio (Toledo)

Jack Mulligan, M.D.
Professor of Medicine
University of Missouri
School of Medicine (Kansas City)

Wednesday, December 14, 1977 (continued)

Workshop B

Can continuing medical education programs change practice and referral patterns?

David Bennahum, M.D.
Medical Education Director
Presbyterian Hospital
(Albuquerque, New Mexico)

Workshop C

How does new technology application affect quality care and cost containment?

Roger Egeberg, M.D.
Chief Medical Officer
HCFA/Medicare

Edward Carels, Ph.D.
Director of Research
Health Care Management Systems

Workshop D

What are the requirements of a "modern medical practice?"

Byron Oberst, M.D.
Pediatrician, Chairman
Standards Society for Computer Medicine

Robert Shackelford, M.D.
Vice-Speaker, House of Delegates
American Academy of Family Physicians

Wednesday, December 14, 1977 (continued)

Workshop E

The Impact of the Fiscal Agent on the Medicaid Partnership

John M. Connelly, M.D.
Assistant Medical Director
for Hospital Services
Blue Cross/Blue Shield Plan of N.J.

Lawrence C. Morris, Jr.
Senior Vice-President
Blue Shield Association

10:50 AM - 11:10 AM — COFFEE BREAK

11:15 AM - 12:30 PM — Workshops

Repeated as above.

12:30 PM - 3:30 PM — MIDDAY BREAK - Lunch and private meetings

3:30 PM - 6:00 PM — Module IV

Development of Action Plans

Based on discussions in Module I, each workshop group will take the State approach that was presented to them on the first day and write an action plan including all improvements that were discussed. Meeting room assignments and workshop attendees are the same as in Module I.

Thursday, December 15, 1977

8:30 AM - 9:15 AM — Workshop Reports

Brief statements of results on workshop discussions by the State Medicaid Directors who led the State workshops in Modules I and IV.

Thursday, December 15, 1977 (continued)

9:15 AM - 10:00 AM	Profiling and the Provider Introduction: Uses of Medicaid Provider and Recipient profiles Daniel Boyle Institute for Medicaid Management Texas Medicaid Patient Profiling Emmett Greif, M.D. Deputy Commissioner for Medical Programs Utah PACE Project Richard Bigelow, M.D. Medical Director Utah PSRO Ambulatory Care Project Delta Dental Profiles John F. Field, DDS Assistant Vice President Public and Professional Services California Dental Service
10:00 AM - 10:30 AM	COFFEE BREAK
10:30 AM - 11:30 AM	Remarks Impact of the Medicare/Medicaid Anti-Fraud and Abuse Amendments and Rural Health Legislation Jodi Dunn, Program Analyst Division of Analysis and Evaluation Medicaid Bureau
11:30 AM - 11:40 AM	CONFERENCE CLOSING

OPENING REMARKS ON CONFERENCE ON MEDICAID
AND THE HEALTH CARE PROVIDER

Robert H. Shackelford, M.D.
Board of Directors
American Academy of Family Physicians

Thank you, Mr. Levinson. Thank you all for allowing me the opportunity to represent the professional provider at this time. Although I speak as a family physician, I am sure that all professional providers, pediatricians, internists, osteopathic physicians, and surgical specialists share common ground regarding the Medicaid program. Hopefully, I can bring to this conference the professional providers' interest in and concern for the Medicaid program. First - from the local level - I am a full time practicing family physician. Second - from the State level - through the North Carolina Medical Society I am working with North Carolina Legislators in regard to the North Carolina program and third - from the national level - I am Vice Speaker of the Congress of Delegates and a member of the Board of Directors of the American Academy of Family Physicians.

The Medicaid program and professional providers are inexorably interrelated co-workers with a common goal and common problems and a need to cooperate. (1) Co-workers: In 1976 the Federal government spent 33.7 billion dollars in direct payment for personal health care. (2) Common Goal: good patient care for the medical needy. (3) Common problems: (a) quality of care; (b) cost containment; (c) fraud and abuse; and (d) professional provider participation. (a) Quality care must be addressed by agencies and providers from the standpoint of: 1. availablility - equitable distribution of providers and equitable access to available providers; 2. appropriatenesss - the right quality of care in the right provider-

location at an equitable cost; and 3. accountability - both from a cost and appropriateness basis. (b) Cost containment must be addressed from: 1. budgetary limits of the agencies - the well is not bottomless; 2. budgetary limits of professional providers - they cannot be expected to provide quality care without responsible acknowledgement of its reasonable cost; and 3. budgetary limitations of the Nation - the people will impose a ceiling on overall health care expenditures. c) Fraud and abuse: 1. Professional providers must be willing to individually and collectively expose and prosecute abusers. 2. Agencies must adopt methods that reduce opportunity for and discourage fraud. 3. Patient participants must be educated regarding their responsibilities in utilizing health care services. d) Professional provider participation is essential to the program. Problems arise over: 1. paperwork - essential but exasperating and expensive; 2. prompt and adequate payment for services rendered; 3. peer evaluation of quality of service (this is a must); and 4. variability of payment for services relative to where rendered. These common areas of concern dictate cooperation for mutual benefit.

My presence here is to foster cooperation from the professional provider at several levels. I am continuing my activities at the local and State level to the hopeful mutual benefit of N.C. patients, professional providers and the N.C. Medicaid agency. I bring the stated policies of the A.A.F.P. bearing on these problems. 1. AAFP is on record in favor of increased proportions of primary care physicians, correction

of geographic maldistribution, equal fee for equal service, reduction in fragmentation of care and patient education for and involvement in his or her health care. All of these should improve quality, availibility and appropriateness of care and participation by professional providers. 2. Fraud and abuse - a policy adopted in Boston in 1976 established the Academy's position as condemning fraud and abuse wherever found and advocating proper preventive and punitive activities. 3. The 1977 Congress of Delegates adopted a comprehensive statement expressing concern over skyrocketing health care costs and specifically encouraged its members to use the most economical practices consistent with quality health care.

We want to cooperate. We want to provide quality health care to our patients. 33.7 billion dollars should purchase an enormous amount of quality health care. If the proposed partnership is a true union between equal partners and the needs of each are equally respected this purchase can be made.

Virginia Smyth
Regional Administrator (Acting)
Health Care Financing Administration - Region IV

Federal Partnership With State Medicaid Agencies - And Its Influence On Relationship To Physicians

For the past month Region IV HCFA has been holding meetings with all of its official constituents who have operational responsibility for Medicare, Medicaid, including LTC, PSRO and ESRD programs.

In each meeting we have had an opportunity to discuss the type of problems that strain our relationship with providers - especially physicians. I want to share a few of the concerns that have been expressed repeatedly.

1. The reimbursement methodology is cumbersome and physicians do not understand how their payments relate to their charges.

2. Medicaid and Medicare are too complex to understand and are hopelessly immersed in red tape and paperwork. The remedies to these two problems could be partially found in simplified, clear policy language and the requirement that Medicaid and Medicare utilize common billing forms, and common diagnostic and procedure codes.

3. Physicians as major providers do not want to be blamed for all the ills of the system. They want more input into the policy process.

4. Physicians want reasonably prompt payment for services rendered and when the system does not respond in a timely fashion, providers tend to drop out.

In addition to the above specific areas referenced throughout our meetings, our office along with other regional HCFA offices, has been examining our Medicare and Medicaid programs to determine how we can improve physician relationships. In Region IV we surveyed State Medicaid agencies to learn more about what they were doing. In general we found:

Physician Relationships

This summary concerning the relationship between State Medicaid agencies in Region IV and physician providers who participate under Title XIX - Medical Assistance Program - results from State-by-State reviews recently conducted by Regional/HCFA - Medicaid. The objective of these reviews was to assess the strengths and weaknesses which may exist between State agencies and physician providers towards developing future strategies for improving communication and resolving problems of mutual concern. This summary is intended to present a general overview of relationship characteristics identified by these reviews.

It is important to note that the pattern of relationships which exists between the various State agencies and physician providers is characteristically diverse, making any attempts at meaningful correlation difficult.

In the eight States that comprise Region IV there are 58,883 licensed physicians. Of this number, 24,921, or approximately 42%, participate in the Medical Assistance Program. In each State there in an active Medical Association with good member participation. These Associations usually convene local monthly and annual Statewide business/scientific meetings. The State agencies are as a rule invited to attend these various meetings.

All State Medicaid agencies have Medical Care Advisory Committees mandated by statute to include providers and recipients. Physicians are appointed to serve these committees. They represent a broad cross section of medical specialists.

The State Medical Associations appear to have little or no role in the formulation of State Medicaid policy. The Associations and their "contract agencies" do, however, manage and control activity related to utilization control, program fraud and abuse, complaints, etc. Most State agencies have developed mechanisms for eliciting feedback from the physician community such as technical advisory committees, fiscal agents, publications, and workshops. Florida appears to be the only State with no such mechanisms.

Physician providers generally view low reimbursement rates, program "red tape"/increasing paperwork, and patient overutilization of services as primary problems. However, there seems to be a growing concern over the new emphasis being placed on fraud and abuse by the Federal government and what is described as patient/consumer militancy. The State agencies generally find that there is some basis in fact to these providers concerns.

There are 27 Professional Standards Review Organizations (PSRO) in this Region. Five PSROs are Statewide. At the present time, Georgia is the only State with no officially designated PSRO. Standards Review activity in other States seems varied with no apparent impact on State agency-professional relationships.

In general, it would appear that State agencies have been involved in varying degrees of relationship building with the physician provider community. However, it does not appear that State agencies view continued relationship building as a primary program goal. Most of the interface between State agencies and physician providers seems to come as a result of specific problem solving rather than ongoing communication of a non-crisis orientated nature. While no acute programmatic issues were surfaced related to State agency-physician provider relationships, it would seem prudent for State agencies to view improved and broadened communications with the physician provider community as a desired goal.

We also have reviewed the scope of Medicare's work with the physician community. In Medicare the relationship to medical societies and to physicians and physician groups are largely the responsibility of the carrier and monitored by the Medicare staff. In addition the Federal Medicare staff also participates extensively in building relationships, providing information and workshops.

Both Medicare and Medicaid conduct separate workshops to assist physicians on their understanding of how to file claims for services and procedures that the respective agency utilizes in processing the claims. Both programs have staff who visit physicians' offices, attend Medical Society Committees' and annual meetings and speak before State and local Medical Society meetings.

Both programs separately issue newsletters, policy bulletins about program change, etc. Some are the same; some are in conflict.

I could enumerate a few other examples - but I think the message is clear--

We are creating a lot of problems that exist in relation to obtaining sufficient physician provider resources for the programs we manage - Medicare and Medicaid.

The problems basically are:

1. Lack of clear, concise and easily understandable policy with sufficient latitude to allow its adaptation to regional differences.

2. Lack of uniformity in billing forms, procedure codes and data reporting - all of which contribute to excessive red tape, paperwork, margin of error, and administrative cost.

3. Dual training and policy interpretation for similar programs. Policy consistency should be increased as the HCFA organization matures and this problem hopefully can be addressed in a different way.

4. Multiple staff calling on Medical Societies and physicians to discuss problems as well as policy issues for problem resolution or general information.

The partnership - unfortunately - is a myth in the minds of many. They are probably right. The partnerhip must be a two-way street and it must include not only those who are responsible for operationalizing the programs, but those who deliver them.

The challenge is great - bringing Medicare and Medicaid together in ways that will benefit both programs should contribute

from the Federal side to improved program management. Working through the process to determine changes most needed and how to implement such must involve providers and others responsible at the operating level. The two-way exchange will enhance the partnership.

Elsie M. Tytla, M.D.
Medical Advisor
Medicaid Bureau
Health Care Financing Administration

Perspective on the Partnership

It gives me great pleasure to greet you here today and I am delighted to say that this is a conference whose time has come

During the past three years under the direction of Dr. Weikel, the Medicaid Bureau has tried to work more closely with all professional groups providing care under Medicaid and we have been able to get valuable assistance from specific professional groups to help us solve specific problems. But it was not until this year with the technical assistance available from the IMM, and the strong direction from Mr. Derzon to improve relationships with the professional community, that we were able to put it all together and through this conference launch a new spirit of trust and partnership between government bill-payers and professional providers of health services for Medicaid, Medicare, or any health program.

This conference is not meant to be simply a "PR" show of cooperation. It will be a working session in which we will confront many of the serious problems plaguing all of us and will develop a plan of responsibility for each partner in solving the many vexing problems. So that in the end, patients can receive the right health care within reasonable cost.

Let me point out a paradox. American medicine is noted as the most advanced and respected in the world in dealing with disease -- yet the profession's competence and integrity are under fire and its concern for human suffering and caring for the health needs of the poor are in doubt. Some of this skepticism is due to the existence of the Medicaid program directly.

It was, after all, the rapidly enlarging bite of health expenditures on the Federal and States' tax dollars that surfaced the so called "Health Crisis." In spite of the fact that only about half the practicing doctors in this country participate in Medicaid in any way, I venture to say that Medicaid has had a profound influence on every health professional and the practice of medicine as it exists today.

-- Some of it has been damaging (such as the fraud and abuse publicity eroding professional prestige.)

-- Some has been constructive and innovative (e.g., Peer Review Systems, prepaid health care plans and EPSDT, the largest preventive health care program for children.)

-- Other effects have been more regulatory and repressive (e.g., PSRO might be considered so by some and the new fraud and abuse reform amendments.)

Physicians who thought that by ignoring the Medicaid program they would not be affected by government, all now find themselves under the microscope and all are blamed for the sins of a few.

It is a paradox that the more the reputable doctors have disassociated themselves from Medicaid, the more government influence has come in to permeate each individual medical practice.

But Medicaid agencies have been equally stand-offish and reluctant to enlist the help of the professional community to solve some of its problems -- perhaps it's been with some fear of "collaborating with the enemy."

In fact, Medicaid and providers appear to have been following a divergent path, with less and less communication on mutually important issues.

This scheme has been progressively more damaging to both the bill payers and the medical profession. Agencies are plagued by costs, poor care, fewer providers. Professionals are plagued by more and more controls, regulations and accountability.

I hope this conference will show that there are indeed mutual benefits to be gained by working together.

Furthermore, I am convinced that only by improving the conditions under which primary care is delivered in ambulatory settings -- that is, providing incentives, up-grading practice patterns and decreasing inappropriate referrals and hospitalizations -- can we achieve long-term cost savings and still provide quality care.

Some of our State Medicaid agencies have learned the hard way, but nevertheless have learned, that the problems of escalating costs, over-utilization, inappropriate treatments or surgery, abuse and fraud, provider dissatisfaction, decreasing availability of quality care and unnecessary or inappropriate use of institutional facilities are not discrete,isolated problems to be regulated from above, one at a time. They are all interrelated and must be addressed systematically and simultaneously by government agencies and professional providers working together.

During the course of this conference, we hope to accomplish a number of things:

First, to lay out the elements of an effective Medicaid partnership and describe the mandates under which the program operates and parameters of responsibility.

Second, to allow States with a well functioning policy formulation process to share those systems with other State agencies.

Third, to provide a forum for discussing troublesome issues concerning PSROs and Medicaid relationships.

And fourth, to hear what is happening in the professional community concerning quality issues and their relationship to cost of health care.

As you can see from the agenda, we mean this to be a working meeting (in spite of being at Disney World.) We want to come out of this conference with a sound base for the future and specifically a Model Action Plan which States can adopt to make Medical Advisory Committees useful and meaningful in the Medicaid policy formulation process.

After this conference, IMM and I will collate the best of the plans developed here into a model action plan which will be discussed further at the annual Medicaid Directors Meeting in March for State implementation.

KEYNOTE ADDRESS:

PUBLIC HEALTH PROGRAMS: THE PROVIDER AND GOVERNMENT PARTNERSHIP

William Fullerton
Deputy Administrator
Health Care Financing Administration
Department of Health, Education, and Welfare

The Institute for Medicaid Management has as its slogan "Progress Through Partnership." That phrase was coined initially to crystalize the combined Federal-State efforts to bring mainstream health care to the poor through Medicaid. But that phrase has also turned out to be a fortuitous one, because it covers more than the Federal-State partnership. I believe it aptly describes the relationship that can exist between Federal and State governments, health care providers and recipients of care. I believe also that all of us - patients, bureaucrats, providers, and taxpayers share the rising concern over the high cost of health care in our country.

This meeting provides a forum for each partner in Medicaid to express ideas, to seek solutions to problems and to voice constructive criticism about current policies or procedures. I am happy to see representatives of the provider community and Medicaid convened here, because it is only through the sharing of viewpoints that effective management of this program can come about.

Recently a magazine series started its discussion of health care costs with an article entitled "What's Bad for General Motors."*

*Marshal, Eliot, "What's Bad for General Motors," The New Republic, 3/12/77.

The author then made the point that General Motors (GM) spends about $1 billion per year on employee health insurance and adds: ". . . we ought to take note when something gives GM nightmares, because GM is not the kind of organization that scares easily." I might expand that idea to say that the Federal government does not scare easily either, but alarms <u>are</u> sounding when health care costs keep going up.

Now the Federal government is not noted for breakneck action. In the case of a publicly funded health program, this may well be a positive factor. Moving at something more than a snail's pace and something less than that of the Concorde allows time. Time that is needed for all of us to ask questions and together to seek answers.

The Federal government cannot deal unilaterally with the many issues involved in a health care program. Both providers of care and payers for care must work together, sharing responsibilities and seeking effective and affordable ways to meet the health needs of our citizens. In the next few days you will explore ways to do this, and undoubtedly will come up with some viable ideas and answers to the big question: Can we really afford national health insurance? I don't know the answer; I do know that pollsters find that the majority of American people want national health insurance, and we all know that this is a goal of the Carter Administration.

In seeking the answer to the question, many will scrutinize the public health programs we have now - Medicare and Medicaid. While these programs have received a mixed press for numerous reasons, we do know that they have financed previously needed but unprovided health services for the elderly or poor. But the performance of all parties involved - providers, patients and administrators - can be questioned. We must all learn from our Medicare/Medicaid experience - to prevent the repetition of our previous errors and to build together the foundation for national health coverage.

The first building block for national health insurance may be more effective management of what we now have. What then, can the provider do to improve the management of Medicaid? What should the provider not do?

I'd like to offer some ideas from Dr. E. Kash Rose, President of the California Medical Association, to answer the first question.* Dr. Rose suggests that each and every physician should know exact costs of specific examinations, services and referrals that he orders for patients. With this cost awareness, he submits, the physician might avoid some tests, or opt for outpatient treatment rather than hospitalization at $175 a day. Dr. Rose suggests that physicians might be more cautious about implementing expensive new

*Western Journal of Medicine, 6/77

technology; that they might coordinate services better, to lessen duplication of expensive new equipment. He points out that the medical profession should question some accepted practices like that of annual physicals. Industries spend millions of dollars on such physicals, he points out, but studies show that those receiving them have the same disease, disability, and death rates as people who go to a physician only when they are sick. This sounds like good thoughtful advice to me.

What should providers not do? To borrow once again from that magazine series on containing health care costs, providers should avoid the recurrence of "CAT fever."* CAT, for those unfamiliar with the acronym, refers to the Computerized Axial Tomography scanner - a combination of X-ray-computer. This machine, often called the "body scanner," produces remarkably clear images of the brain, at markedly less patient risk, and is a recent improvement in neurosurgical technology. Its price tag is $500,000. There are about 800 CATs in the United States with $200 million in operating costs per year. While the CAT has the approval of many surgeons and radiologists, one could question the proliferation of this scanner particularly in relation to the areas served. For example, there are seven in Baltimore and 22 in the greater Miami area. Enlarging the Washington, D.C. area to Northern Virginia and Annapolis, all

*Marshall, Eliot, CAT Fever, New Republic, 4/16/77.

within an hour's drive of the capital, brings up 12 hospitals with CATs. Fees for basic head scans in the greater D.C. area range from $175 to $250. Here, one could question the role of the health planner in combatting the CAT fever that apparently swept the Nation's medical profession. But, in truth, one should question the providers' role first. If we accept the CAT as essential, why did hospitals and doctors in such proximity all feel they had to have one? Why couldn't a sharing arrangement have been worked out? Why couldn't the medical community have looked at the population served, the potential demand for the CAT and tailored the installation of these scanners to such factors?

As far as the CAT goes, the next problem to come up will be those hospitals that want to replace "old" scanners with new "improved" ones. (There are now 15 types of scanners and more on the way.) Will CAT fever recur? Only the physicians and hospitals can answer that question, because its origin lies in their control.

There are promising efforts underway in the medical community. One of these is the AMA's National Commission on the cost of medical care. This Commission just released its report. While independent of, and in some cases contrary to, AMA's position, some of the recommendations are interesting and encouraging.

Among them:

- competition should be encouraged among health care providers;
- physician fee schedules for common procedures should be published; and
- certificate of need laws should be expanded to include private physicians' offices with coverage to begin at expenditures of $150,000.

These few examples by no means exhaust the list of recommendations made by the Commission. We understand that some of these recommendations may be received with less than enthusiasm by the AMA itself. But we find such exploration of ideas hopeful and will be considering them carefully in HCFA.

And now let me anticipate a question that is undoubtedly burning on your lips. What can the Federal government do to improve the management of Medicaid?

Besides the obvious answer that lies in meetings such as this one, and the Institute's efforts to facilitate the exchange of ideas and technology among the States, there are many things we can do.

We'll talk about red tape first off. We are and will be exploring ways to lessen the burden of administrative rules upon

providers. I will not promise that we will do away with all regulations, etc. To do so would be foolish and irresponsible, because each of us in this room is accountable for use of taxpayers' money. Accountability means documentation in many instances, and documentation means written instructions or regulations.

Nevertheless, here are some of the efforts underway now in HEW that we hope will make providing health care and obtaining reimbursement better for providers.

The Federal regulations pertaining to Medicaid are being rewritten in entirety. The purpose is to simplify, clarify, and streamline these regulations, organizing them in such a way as to make them understandable and easily referenced. That may not sound like a big job or a great stride, but it is. As one jurist put it: "There should be no such form of reference as 45 CFR 248.3(c)(1)(ii)(B)(2). . . a draftsman who has gotten himself into a position. . . like this should make a fresh start."*

The "Medicare-Medicaid Anti-Fraud and Anti-Abuse Amendments" enacted in October, 1977 require a uniform reporting system for Medicare and Medicaid providers. We are pretty well ready for this one, since HEW has been testing a uniform reporting system

*Friedman vs Berger, NY, 28080, 1976.

including fiscal and statistical data for some time now. About 2,000 hospitals are using it in California, Arkansas and Washington. New York plans to start using it in early 1979. This report also can be used for skilled nursing and intermediate care facilities. Now if the Federal programs can arrive at a commonly acceptable reporting form, more and more States will undoubtedly do so. This would ultimately mean only one report to satisfy three agencies - surely an improvement. This law does allow time for experimentation and demonstration of a uniform reporting system.

There are other ideas that we are exploring or plan to explore, among them encouragement of automated claims processing in the States. This pays off in quicker, more accurate reimbursement to providers. Special Federal funding is available to States designing and developing such systems. Besides payoff in quicker reimbursement, such systems can give the provider a profile of his own pattern of practice, which I am told, can be quite a revelation to a busy practitioner. I am sure that before this conference is over you will come up with a lot more things the Federal government could do.

Lest they feel neglected, and also because it's important, I want to mention some examples of the things States are doing to improve their management of Medicaid. I'm going to be brief

about this because you'll hear the details from State staff in the various conference workshops.

Michigan has a dynamic provider relations program. Not only does this State have the usual provider manuals and instructions, but also it seeks provider input in policy formulation and conducts seminars for specific provider types. Michigan has a "hot line" too, that providers can use to solve billing problems. Michigan also provides training for billing clerks and believes that this is the key to having the payment system work well.

Missouri has what they call their "lock-in" program. This is aimed at recipient overutilization, but results in better care for the patient, and control of expenditures, concerns of us all. Patients who are "doctor shopping" are asked to designate a selected physician and pharmacy and their Medicaid cards are so annotated. But the patient and the providers benefit as well, since contradictory therapy orders (from different physicians) are prevented, allowing the attending physician greater chance of success with the illness he is seeking to treat, and the patient greater chance of recovery.

Minnesota, to continue the litany of M's, also works closely with its providers in implementing its automated profiling system. Seminars have been held with pharmacists and physicians

to discuss what this automated review is, how it works and what it can do for the provider. I won't continue this listing. As I said you'll have plenty of opportunity in the next 2 1/2 days to talk to State Medicaid staff and hear them discuss their efforts.

You have heard me mention, perhaps too often, our concern with rising program costs. Ignoring this rise serves no purpose, if we are to try to really dig into the Medicaid program and all factors impacting upon it.

Medicaid is no nickel and dime store - as a matter of fact, there are no true five and ten cent stores nowadays, are there? Inflation has affected all of us - from General Motors, to Woolworth's, to John Q. Public. Let me give you some of the figures for Medicaid. In FY 1976, the Federal and State governments expended $14.6 billion for Medicaid. This covered services for about 23 million men, women and children in 53 jurisdictions. 158,000 physicians, 17,000 institutional providers, 43,000 dentists and 43,000 pharmacists provided these services. In FY 1976, the average payment per recipient was $610; for the aged and disabled, it was $1371. The number of claims processed by the States was 227 million. These figures give you more than an array of statistics, I believe. I think they sketch a massive network (or partnership if you will) composed of many

types of providers, a diverse population base, many administrators and tons of paperwork. Medicaid is no simple matter for discussion. It is a multi-billion dollar health enterprise, requiring reasonable people to work out acceptable procedures for providing health servvices purchased by taxpayer dollars.

In closing, I'd like to share this excerpt from "Welfare Medicine in America, A Case Study of Medicaid," by Robert and Rosemary Stevens.

> "In summary, whether one rates Medicaid as a failure or success, or somewhere between, depends on the touchstone used in such a measurement. The basic faults of Medicaid, epitomized by lax administration and unanticipated costs, were inherent in the legislation; a more effective design would demand the establishment of clear goals and priorities. The noble phrases embodied in the legislation, promising comprehensive care to the medically indigent, were not to be realized; in this respect, implementation was disappointing. The inequities of welfare medicine, with provision of services based on a means test, have been amply demonstrated, both in respect to the 'notch' effect (whereby low-income workers may have fewer medical services than those on Medicaid) and in arbitrary definition of eligibility. It may be, of course, that

nothing approaching 'equity' is possible in the provision of medical services. The problems of allocation (or tampering with the market, depending on your perspective) may be just so great that no matter how extensive the funding or how great the willingness to restructure providers, equity is just not possible, or other countervailing pressures may be there. Medicaid has shown, however, that there will be an absence of clarity about what is to be achieved in terms of the standards of care, an inability to define equity, and a basic reluctance to commit funds, until decisions are thrust upon Congress from apparent breakdowns in existing programs. If the long-term solution for health care in the United States is to be a success, then its architects would do well to study carefully the Medicaid experience."*

I submit that each of us may consider ourselves "architects" and urge you to use this opportunity constructively, to thoughtfully consider what you will hear at this conference and to give us the benefit of your experience as we seek to improve Medicaid for all concerned.

*The Free Press, New York, 1974

CONFERENCE PAPERS

Byron B. Oberst, M.D., F.A.A.P.
Pediatrician, Chairman
Standards Society for Computer Medicine
Omaha, Nebraska

The Anatomy Of A Modern Pediatric Practice

Abstract

The physician of today is beset by many forces and demands, including health planning. There are many advances in modern technology, including the computer, which can aid the physician. The component parts of a modern pediatric practice include accounting aspects, administrative aspects and nine (9) health care application aspects. Each of these aspects will be discussed. The physician has a need for an organized practice, a structured, dynamic office record system and the application of the computer to health care. The medical school curriculum needs to incorporate this knowledge into all levels of medical education.

Key words

Management -- Accounting -- Administration -- Records -- Computers.

Overview

In today's changing health care delivery and with the recent advances in computer technology, the capabilities for a comprehensive, preventive and curative medical practice exist as never

before. The increased demands by government, third party payees and consumers (patients and families) have strained to the utmost previous medical practice capabilities. The derogatory misnomer of "cottage industry" that many politicians and health planners glibly bandy around does nothing to enhance patient/family/physician confidence or physician desire for cooperation and/or adaptation to the changing modes of health care delivery. The intense governmental, political and media campaigns to undermine and discredit the current health care delivery system--especially physicians--do not create an aura of cooperation and good will. The hue and cry concerning excessive charges of fraud among a minority of health care providers (physicians and others), with no considerations given to the vast majority of law-abiding, conscientious physicians, does not aid the needed interrelationships based upon good will, trust, confidence and the desire to utilize modern technology.

Into this milieu, there has been thrust health planning at the local, State and national levels which further complicates the picture. From these various thrusts and forces, there has evolved a shift in emphasis from curative to preventive health care. The health educational capabilities have never before been harnessed for positive applications on so broad a scale, except in a few, isolated instances, such as driver's education, cancer awareness and some other areas. The needs for patient surveillance,

compliance, functional outcome determinations, tracking and recall for effectiveness of treatment modes have existed since the time medicine began, but the capabilities for accomplishment have not existed until now.

Today, the advances in modern technology, especially computer applications to health care, make the meeting of all of these demands a realistic probability. It is with these collective thoughts in mind that this paper is being written. In this manner, a prototype of a comprehensive, quality pediatric practice which addresses most of the needs of infants, children, adolescents, families and community health can be presented.

The importance of addressing mental hygiene, as well as nutrition and other physical aspects of preventive health care, is essential in order to shift health care from a curative and corrective stance to a preventive modality. It does nothing for a child, youth or adult to have diabetes, arthritis or any other malady well-controlled if the individual cannot, within reason, run, play or earn a living as most other people. There are emotional and physical factors within all health care modes whether encompassing Health Supervision, per se, Acute Health Care or Chronic Health Care. It is within this context and framework that the rest of this paper will address these needed components. The many changing faces of medicine will need to be

accommodated, including the continuing education and recertification needs of the physician, as well as the scientific and technological advances in disease states and health care delivery.

Component Parts of a Practice

There are three major component parts to any vibrant, thriving, modern, medical practice:

1. Accounting Aspects

2. Administrative Aspects

3. Health Care Application Aspects

Each of these aspects will be briefly considered.

Accounting Aspects: Cost accounting will become a byword with physicians in the near future.

The seemingly uncontrollable inflationery forces deluging the physician make it imperative that medical education include practice management as a major element in the modern medical curriculum. Changes in minimum wages, rising costs of equipment, major increases in all types of needed practice insurance and a host of other items have created a new requirement for business expertise within the physician's scope of responsibilities.

The desire for better quality of care in lieu of numbers of bodies seen, yields and mass statistics dictates the need

to incorporate Time Factors, as well as Physician Responsibility Factors into any cost accounting program.

The computer and modern accounting methodologies make all of these factors a reality. There is no reason for the ineffective accounting mechanisms, archaic billing and mailing procedures and other antiquated procedures of the past.

Cost effectiveness is a term new on the medical horizon. What it really means and how it can be practically applied remain to be determined. The meager and infantile efforts towards this goal, so far, have been more confusing than rewarding.

Administrative Aspects: Management by Objective and Exception are methodologies with which all physicians need to become familiar. The use of physician extenders and paramedics have created pressures for better understanding of administrative principles and policies.

The changing labor laws, equal rights provisions and a host of other social changes have created a necessity for better definition of work roles, obtaining more practice parameters, determining types of practice patient mix, and a multitude of other corporation management changes. The understanding of the Cost Center Concept and Practice Parameters has introduced modern management techniques into the smallest physician office, as well as the large multi-disciplinary health care delivery structures.

The computer is capable of handling many of these requirements. If medical education would encompass practice administratve techniques into the medical curriculum, these principles could be readily applied without any major dislocation of the current health care delivery systems. The resultant effect would be a more cohesive and efficient utilization of health resources, including health care dollars. These health resources could, then, be better allocated based upon types of care rendered, variety of office visits needed, patient type and age mix seen, and many other determinants.

Health Care Aspects: It is within this area of health care that the computer is, in reality, a sleeping giant with almost untouched capabilities for application to improve health care delivery, per se. The heart of modern health care applications is a dynamic, structured office record system with a commonality of language coding, similar to the Current Procedural Terminology and the H.I.C.D.A. System, and a rapid input/recall mechanism utilizing the computer. There are, at least, nine health care delivery applications.

1. Physician's Professional Development: This area includes continuing education, recertification data, practice management time and related items. The need to accrue and document this information is necessary for State

relicensing, board recertification, cost center details and related information.

2. The Patient Medical Synopsis: There is a need to accrue certain, pertinent information concerning an individual patient's medical history in a brief, summary form. This data includes demographic data, short family and patient history, potential and actual medical problem lists, immunizations, medications, laboratory data, procedures, functional capacity of the patient, and other important facts. This data needs to be integrated into a Problem Oriented Motif and Format. The computer is able to accomplish this accrual of data for further utilization and application.

3. History Gathering Techniques: There are available several techniques to obtain detailed patient and family history. Some of these techniques include programmed history forms, use of Cathode Ray Tube Terminals, processing of data by Opscan equipment, and other methodologies. These techniques are able to obtain and process large amounts of information into a utilizable manner. The computer can readily accomplish these tasks.

4. Surveillance and Patient Tracking: There is a great need to be able to insure completion of immunization programs,

recall patients who miss important follow-up appointments, supervise serious disease states on a longitudinal basis, such as diabetes or minimal brain dysfunction, track certain medications, such as Dilantin and other necessary situations in today's modern medical and medicolegal world. The capabilities for computer application to this phase of health care are endless.

5. Quality Control of Patient Care: The principle of comparing individual, office patient health care against predetermined algorithms similar to PSRO and Utilization Reviews which accomplish this "comparison" on large segments of hospital patient care is now accepted. Patient treatment compliance, treatment costs and other comparisons are capable of being performed by the computer. This capability offers to the physician tools never before available to improve patient care, to follow the functional outcome of the patient as he/she is able to perform his/her daily tasks, and to analyze comparative costs of alternative care on a longitudinal basis.

6. Patient/Parent/Family Education: Health care must incorporate mental hygiene principles in addition to other preventive and curative health education throughout

all aspects of medical care and treatment. There is a need to provide to children, youth and families preventive health care principles in order to lessen the nutritional abuse, poor health hygiene activities and similar self-destructive and self-abuse types of over-indulgences.

The physician needs to be the coordinator of an effective, programmed and interrelated, comprehensive health education to all segments of his/her medical practice. The extended use of nursing and paramedic personnel is essential to the success of this comprehensive health care approach. This approach can utilize printed educational materials, audiovisual aids, lectures, discussions and other methodologies. The computer is capable of accruing this education exposure in order to help measure effectiveness.

7. Data and Clinical Information Surveys: Most physicians are not aware of the various types of cases seen within his/her individual practices. Recall of desired types of data in a readily utilizable form is necessary in preparing approaches to patient care population, areas of unrecognized need for continuing education and a host of other types of applications of computer storage and retrieval.

8. Relating Office Practice Data to Census Tract Data and Information: There is a distinct need to be able to relate the vast stores of information available, obtained by census surveys, to individual office practices, both for comparative purposes and to create a greater awareness of what might be needed in the particular census tract, such as a poor percentage of immunized children and youth. There are crossover bridges to relate zip code data to census tract data. The computer can readily accomplish these tasks on both narrow and broad scales.

9. There will be many applications and needs within the futuristic ideas of a changing total health and medical care system, such as appointment scheduling capabilities, transmittal of data within a regional health care area and others. The horizon of one's imagination is the only constraint.

Summary and Conclusions

The modern physician is both besieged by mountains of regulations, administrative needs, and changing health care modalities, in addition to being beset by the tremendous anxieties for the need to preserve quality of health care and close personal patient/physician relationships. With an

organized practice, a structured, dynamic office record system and the case of utilization of the computer in all of these areas, the physician is on the same brink of health care advancement as the impact of space exploration on the advancement of electronic technology.

The medical school curriculum needs to provide the physician with the awareness, knowledge and tools concerning practice management, including computer applications as is similarly provided within the highly technical medical care areas, such as neonatology and clinical pathology.

The physician should not be discouraged and/or overwhelmed by the current, comprehensive, changing health care scene, but should aggressively approach the challenges and opportunities afforded by this changing health care climate. Physician input and direction are imperative for proper and successful applications to health care and health care delivery.

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Emmett W. Greif, M.D.
Deputy Commissioner, Medical Programs
Texas Department of Human Resources

The State Agency And The Provider - How the Partnership Works in Texas

In order for any government agency to have a successful medical program, it is essential that it have provider participation and support. Because of this, the Texas single State agency has tried to build a good working relationship with all provider groups, particularly the physician provider. The physician provider, possibly more than any other provider, needs to be fully informed as to what Medicaid is, as well as what the regulations are that govern its operation, and the amount, duration, and scope of the program's coverage. It is felt that if the physician provider is cognizant of these things, response and communication with State and Federal agencies becomes more positive. Additionally, a good relationship fosters interest and gives the provider an opportunity to have a voice in some of the decision making processes. This further enhances the positive response to agencies attempting to administer the Medicaid program.

It is not a simple task to build such a relationship. In Texas, we have sought providers' support in many ways. This is a list of some of the efforts that are in effect:

A. Employment by State Agency. No physician is employed by the State agency without the approval of the Texas Medical Association or the Texas Osteopathic Association. Prospective physician employees are checked through the local county society and State society records. The society's Executive Director further checks through any other contacts among the peer groups. The physician is also required by the State agency to be a member in good standing of the Medical Association at the county, State, and national level.

No provider is appointed to an advisory committee unless recommended by the peer association; that is, the provider group selects who will represent them.

(As an illustration of the Medical Society's involvement, you might want to consider my own case; when I was in line for my last promotion to Deputy Commissioner of Medical Programs, the TMA insisted that I be designated "Acting" for a period of time. Their request was honored by the Commissioner. This is not to imply that one becomes a "yes man." Far from it. It does, however, mandate that the physicians are to be kept informed and that decisions are honest and fair. After four months of "Acting" status the Association, following a Statewide meeting, requested in writing to the Commissioner that the "Acting" be removed. Only then was I given full authority and responsibility

for all medical programs. The letter referred to above came after a full vote of TMA's special Council on Tax-Financed Health Care Programs, before which I was required to appear.)

B. Reciprocal Understanding. Just as we desire the provider group to have an understanding of our program so they will be more effective, we, too, as the State agency, need to understand the provider groups. For the State to function effectively with the provider group, we must have an indepth knowledge of the structure of the Medical Association's power groups. In Texas, this starts with dialogue between the Executive Director of the Association and the State agency's key "old-timers." The Association's Council on Tax-Financed Health Care Programs (representing all specialities) is another key force relating to the Medicaid program. There is also a special Health Care Committee among members of the House of Delegates, and special advisory groups to the State agency who report back to the Association. The Deputy Commissioner for Medical Programs in the State agency is required to be present at all of these meetings and testify as to the rationale for past actions and for impending policy decisions. The input and recommendations of these provider representatives are gratefully received. The groups may not always agree but they at least understand why certain decisions are made, and what impact upon their practice those decisions will have.

C. Formal and Informal Communications. Knowing "who" to talk to in the Association allows informal information exchange which is extremely valuable in fostering a good relationship. The Deputy Commissioner of the State agency has telephone discussions several times a week with the Texas Medical Association's Executive Director and other peer group leaders regarding individual complaints. All are "checked out" and a report goes back as quickly as possible. Sometimes there are complaints about one of their own physicians whom they feel is abusing the program. The Association wants these "bad apples" out and provides support to the State agency. With that kind of support, pursuing "bad apples" is facilitated.

Recommendations from the provider groups' representatives (as described in "B" above) go to the full House of Delegates. Sometimes the State agency's decisions are unpopular, as you would expect. However, when the reasons for that decision are understood, the result is a continued air of cooperation and sometimes, perhaps, a joint effort to work on getting a needed change.

When specific problems arise within the Association, the Deputy Commissioner is notified and requested to meet with whatever group is appropriate. The issues are then faced "head on." Conversely, when the State faces problems, the Deputy Commissioner requests a meeting with the Association and seeks and secures their support.

Appropriate changes are made whenever possible. This exchange occurs, when possible, prior to any rule, regulation, or policy change being published in the Texas Register. The State agency would prefer that the Association hear any news - good or bad - from us in preference to getting it elsewhere. A previously-informed provider is easier to deal with and more cooperative.

D. Provider Relations. We cover physician and hospital services on a prepaid per capita insuring arrangement. Provider relations are largely covered by a private insurance company. It behooves the State agency, therefore, to work closely with the insurer, particularly their Medical Director.

The Medical Director comes under the same scrutiny that the Deputy Commissioner for Medical Programs in the State agency does. For that reason, the Director and Deputy Commissioner meet frequently to reach agreements on issues in order to present a unified front to the provider. Provider groups are faced together with much mutual support.

Additional ways of meeting with provider groups are being worked on. Further, any complaint from a provider about our insurer is discussed with their Medical Director and vice-versa.

E. Provider Advisory Groups. The Medical Care Advisory Committee to the State agency meets once a month. This committee

represents all provider groups and involves all programs. Issues are raised and thoroughly discussed at these meetings. Few issues fail to overlap into the various provider areas represented. This committee is extremely vocal and has absolutely no qualms about expressing its point of view.

Often an issue raised will be sent to a sub-committee to be researched and reported back to the full committee. The State staff works with members of these sub-committees as appropriate. While they can only recommend, not set policy, much consideration is given to their recommendations before a decision is final. The final decision can only be made by the Deputy Commissioner of the State agency. After following this procedure, the State seldom gets the Committee's blessings but rarely fails to get their support.

F. Provider Support in Program Monitoring Activities. The criteria used to monitor medical necessity and quality care was developed by physicians. This was done through a contract from the State agency to the Texas Medical Foundation (TMF). The foundation (composed of MD's and DO's) employed specialists to develop this criteria. The result is that the State is not telling physicians how to practice medicine, but rather, is telling physicians when their practice deviates from what their own peers have said is good practice. When the data base

indicates a consistent deviation, the criteria is changed -- again, by the physicians themselves.

The Surveillance/Utilization Control Division (S/UC) of the State agency monitors by these criteria. Data is evaluated by experienced Registered Nurses. All cases requiring a medical decision are reviewed by a M.D. Only a medical doctor can make medical decisions, so that we have only physicians judging physicians. (The same holds true in the review process conducted by the State's insuring agent.)

Cases that are questionable are referred to a Program Review Council, which is chaired by a M.D. This Council, organizationally, is not within any program area of the State. It is a separate review board, composed of members representing all divisions such as Financial, Audit, Investigation, the insuring agency, etc. The case in question is reviewed by the Council and proper referral is made for follow-up. There is no hesitancy in referring any case to investigation when indicated. The data has been properly evaluated prior to its presentation to the Council. This prevents undue harassment of providers and is a plus in provider relations.

In summary, there is no intent to imply that all providers are happy. However, with the various attempts at good provider relationships that the State agency has initiated, it is felt

that the providers at least know they are getting as fair a shake as possible within the regulatory and financial constraints under which the State must function.

Texas is paying its physicians 100% of Medicare allowable. The problems are rarely found to be money problems but rather undue paper compliance and undue harassment. By the uniform claim form and proper evaluation of data prior to investigation, the State is trying to eliminate the providers' main concern. Without proper concern for the providers' problems there can be no program. The well-informed provider is the cooperative provider and this is the best technique for good relationships that we've found.

Emmett W. Greif, M.D.
Deputy Commissioner, Medical Programs
Texas Department of Human Resources

Texas Medicaid Patient Profiling

As we attempt to administer and deal with a complex entity like Medicaid, it becomes obvious that efficient and sophisticated management techniques are necessary to maintain control of such large programs. Hence, we have seen the use of computers evolve in an attempt to secure that control. Many of us, however, who become the primary "users" of the computer's output or product have not had any training in computer technology. I don't know about many of you, but I don't really know how a computer works. The computer printout is data and becomes important only when it is translated into information.

I have been to meeting after meeting showing how this data is captured and arranged. Profiles are generated on providers, recipients, hospitals, etc., and ranked every way you can imagine. In fact, this is required if you are to have a certified Medicaid Management Information System.

What can you do with all these stacks of paper? I'd like to share one example of a project we put together using computer generated information. It is a project that focuses on education

of the recipients of Medicaid benefits and we feel it is an effective management tool. It is called the Recipient Health Care Education Program (RHCEP) and we feel it has resulted in improved care for people and has saved money.

The RHCEP program is functioning in five counties in the State. Prospective enrollees in the program come from those areas. (See Figure 1) Computer screens are run against the Medical Recipient Profile which covers the last twelve months of claims. These screens (see Figure 2) are what causes the computer to select potential enrollees for the program. We feel the screens are quite liberal and they were arbitrarily selected. However, they have proved effective. I asked physicians how many patients see six different physicians without a major problem. How many appropriately go to the emergency room 25 times a year?

Let me show you one example of a recipient that was enrolled in the RHCEP program when these screens were applied (see Figure 3). Just look at two patients and what they cost Medicaid - $26,000 plus. Our basic questions are, "How much of this was medically necessary and how much was misutilization?"

If we go back to Figure 1 at this point, we can follow through with the process of the RHCEP program. After the screens have been applied and the profiles are generated, a Registered Nurse Analyst in our Utilization Control Division

Figure 1

DETECTION AND SELECTION

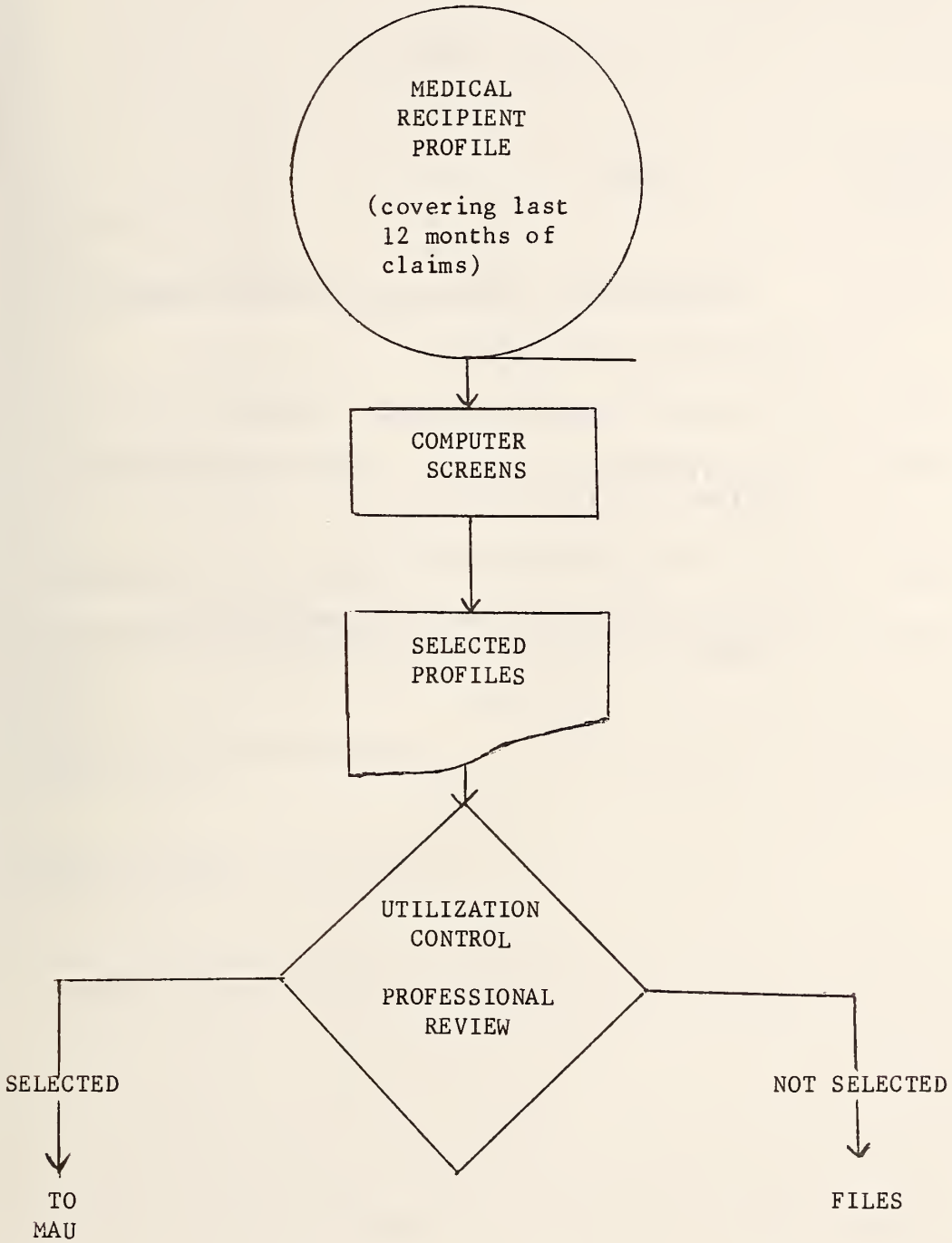


Figure 2

SCREENS USED IN RECIPIENT EDUCATION PROGRAM

1. 25 or more office visits

2. 25 or more outpatient hospital visits

3. A combination of 25 or more office visits and outpatient hospital visits

4. 6 or more different physicians

5. $1,500 or more total dollar volume excluding surgery and inpatient hospital charges

Figure 3

FISCAL YEAR 1975

	MOTHER	DAUGHTER
HOSPITAL STAYS	9	5
HOSPITAL COSTS	$8,675.	$6,158.
OUTPATIENT VISITS	76	55
OUTPATIENT COSTS	$1,519.	$1,097.
DOCTORS' OFFICE VISITS	68	43
DOCTORS' OFFICE COSTS	$ 791.	$ 650.
TOTAL MEDICAID EXPENDITURES	$15,686.90	$10,552.73

TOTAL FOR FAMILY - $26,239.63

MOTHER VISITED 19 PROVIDERS IN ONE MONTH - 10 WERE G.P.'S

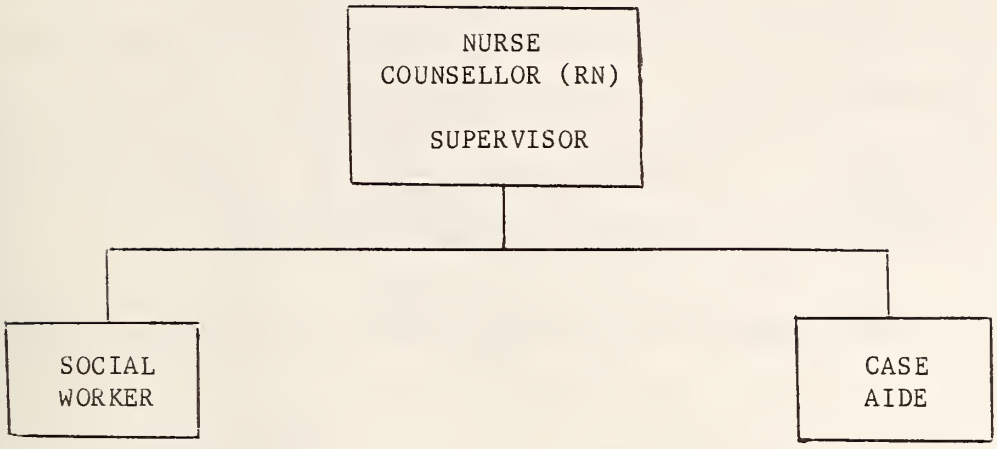
reviews them. Some people will bust these screens but we already know it's medically appropriate (i.e., a renal dialysis patient will often except on these screens). If there is no apparent justification for the activity noted, the case is selected and sent to the appropriate field counseling unit of the program, housed in the Medical Assistance Unit (MAU) of the Department. The counseling team (see Figure 4) is composed of a registered nurse, a social worker and a case aid.

These selected recipients will have their eligibility card held and a letter is sent to them instead. The letter instructs them to report to the counseling center to receive their card. When they are counseled on the initial visit, the nurse reviews their Explanation of Benefits (EOB) form with them and decides if there is a valid reason as to the expense. If there is a valid reason, the patient is not enrolled. He or she is given nis or her eligibility card and resumes getting it each month in the mail.

If the patient is thought to be over-utilizing or under-utilizing the program, the patient is enrolled in the education counseling program and is asked to return each month to receive his counseling and then receive his eligibility card. There is no penalty, no lock-in, no coercion, and a sincere effort is made to explain to the recipient the benefits offered by the

Figure 4

TEXAS DHR COUNSELING TEAM



A. INTERVIEWS

1. MEET RECIPIENT

2. EXPLANATION OF PROGRAM

3. REVIEW OF COMPUTER PROFILE, EMPHASIZING RECENT SERVICES

4. DETERMINATION TO ENROLL/DISENROLL RECIPIENT

B. REPORTING

1. COUNSELING FORM

2. MONTHLY REPORT

program, what services are available and the best method to avail themselves of these services.

In other words, the profile is generated; it either passes or fails the screen. The material is reviewed, and the patient is referred to a counseling center where the decision is made as to whether or not the patient requires counseling.

It was found that 2% of the eligible recipients were using 12% of the money. This was most pronounced in five counties in which counseling teams were established. Since we have over 700,000 categorically eligible, think what would happen if each one used the amount shown for the mother and daughter in the example we saw earlier.

Let me show you a slide of the five counties where the program is being conducted (see Figure 5).

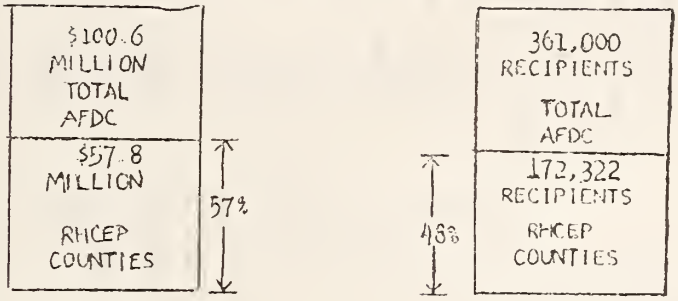
Look at the yearly average of the enrollees versus the average AFDC for the five counties not enrolled. Without computer profiling, proper analysis, and data being translated into information, this money would be down the drain with more to follow.

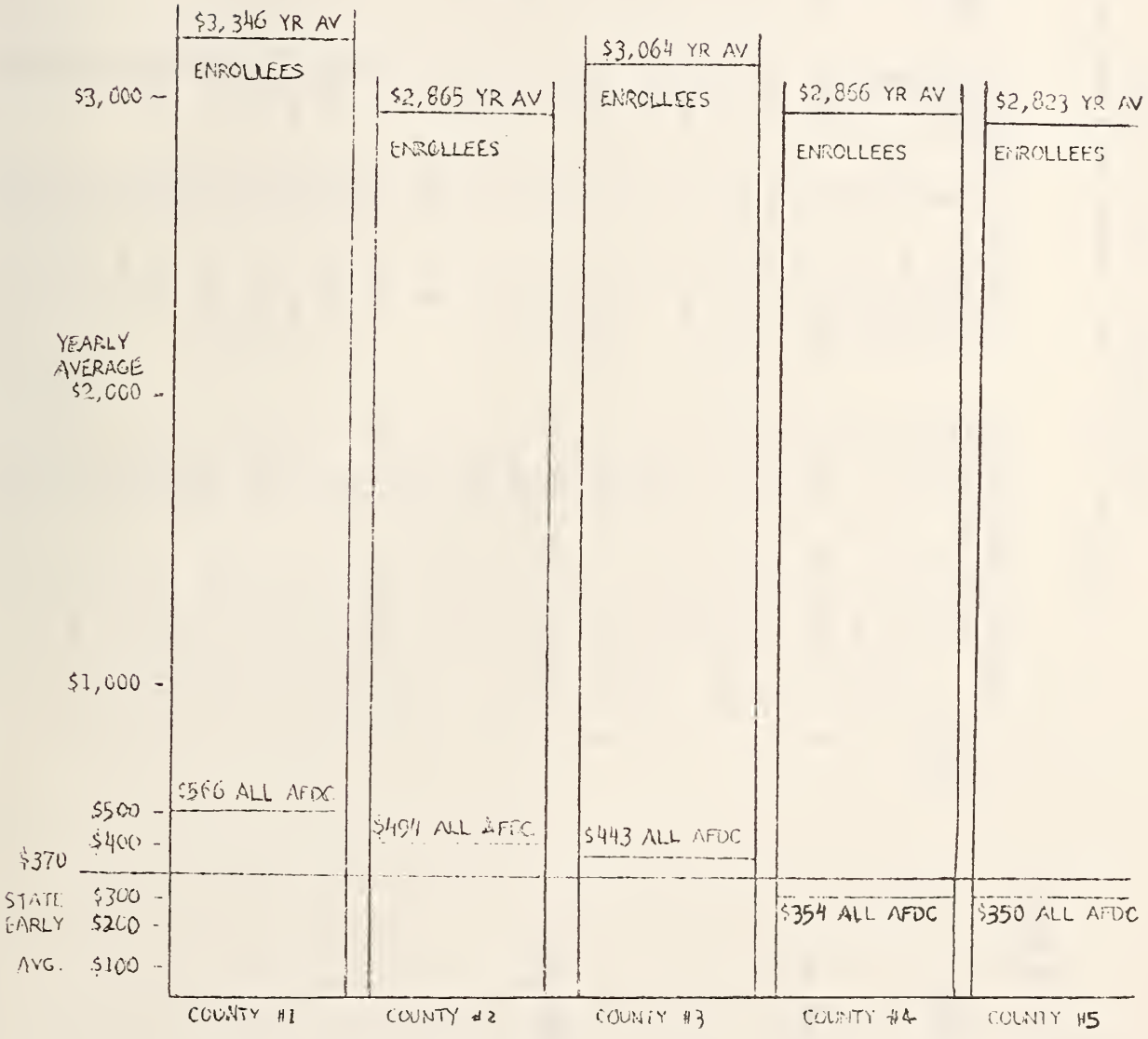
Let me show you what we feel are the estimated savings from this program (see Figure 6). We compute the first figure (Estimated Medicaid Savings) from a comparison of the difference

Figure 5

RECIPIENT HEALTH CARE EDUCATION PROGRAM
TEXAS FISCAL YEAR 1976

EDUCATION ENROLLEES CONTRASTED TO NON-ENROLLEES FOR AFDC CASES





TEXAS DEPARTMENT OF PUBLIC WELFARE
RECIPIENT HEALTH CARE EDUCATION EXPERIENCE

PREPARED ON 01/12/77
FOR 11/01/75 - 10/31/76

COUNTY 000 Any Place

CASE	NAME	NO IN FAMILY	***BEFORE ENROLLMENT*** TOTAL CLAIMS	NO OF MO	MONTHLY AVERAGE	***DURING ENROLLMENT*** TOTAL CLAIMS	NO OF MO	MONTHLY AVERAGE	CHANGE IN MONTHLY AVG	TOTAL ENROLLED		TYPE
2		3	$1,379.72	16	$137.97	$680.35	06	$113.39	$24.58-	$147.98-	06/76	C
2		7	$4,332.19	15	$288.87	$60.26	02	$30.13	$258.74-	$517.48-	08/76	C
2	000001 Jane Doe	5	$1,173.91	08	$208.21	$593.17	08	$74.14	$134.07-	$1,072.56-	02/76	12/76 R
2		5	$3,248.14	11	$295.28	$1,413.99	06	$235.64	$59.64-	$357.84-	04/76	C
2		8	$2,028.02	11	$184.36	$369.08	06	$61.51	$122.85-	$737.10-	04/76	C
2		6	$958.53	14	$68.46	$60.46	02	$30.23	$38.23-	$76.46-	08/76	C
2		6	$2,892.42	14	$206.60	$.00	02	$.00	$206.60-	$413.20-	08/76	C
2		8	$2,903.76	09	$322.64	$3,600.12	08	$450.01	$127.37 INC	$1,018.96	02/76	C
2	000002 Mable Smith	3	$2,436.30	10	$243.63	$525.74	07	$75.10	$168.53-	$1,180.66-	02/76	12/76 R
2		5	$1,602.00	09	$178.67	$616.63	08	$77.07	$101.60-	$812.80-	02/76	C
2		4	$2,391.94	14	$206.56	$42.11	03	$14.03	$192.53-	$577.59-	07/76	C
2		4	$3,737.77	14	$266.98	$.00	00	$.00	$.00	$.00	11/76	C
2		8	$2,490.43	14	$177.83	$.00	00	$.00	$.00	$.00	10/76	12/76 R
2		6	$4,309.96	14	$307.95	$89.09	03	$29.69	$278.16-	$834.48-	07/76	C
2		4	$1,794.03	12	$149.66	$120.74	05	$24.14	$124.52-	$622.60-	05/76	C
2		3	$4,357.31	09	$539.70	$246.20	03	$30.77	$508.93-	$4,071.44-	02/76	C
2		5	$2,214.37	12	$184.57	$235.95	05	$47.19	$137.38-	$686.90-	05/76	C
2		2	$1,491.43	14	$106.53	$.00	00	$.00	$.00	$.00	12/76	A
2		5	$2,541.72	14	$181.55	$.00	00	$.00	$.00	$.00	10/76	C
2		4	$1,263.92	14	$90.28	$.00	00	$.00	$.00	$.00	10/76	C
2		5	$1,137.60	14	$81.82	$.00	02	$.00	$81.82-	$163.64-	08/76	C

Figure 7

Figure 6

TEXAS DEPARTMENT OF HUMAN RESOURCES

RECIPIENT HEALTH CARE EDUCATION PROGRAM
(FIGURES FOR SEPT. 1976 THRU AUG. 1977)

ESTIMATED MEDICAID SAVINGS	$2,416,840
COST OF SALARIES, COMPUTER, ETC.	508,542
	$1,908,298

8,846 COUNSELING HOURS PROVIDED TO RECIPIENTS

in the amount used prior to enrollment and the amount used during enrollment (see Figure 7). In adding it up, we came up with quite a healthy figure (see Figure 6). Note the free counseling hours. How many dollars and how much improved health care this represents is hard to evaluate.

The team sends in a report each month that describes each counseling session, what the problems were, etc. I have here an example of one of the forms (see Figure 8). This patient understands the program and he is dismissed. Many patients have been shifted from "Hit and Miss" care to regular channels of treatment.

Many children have been referred to the Early and Periodic Screening, Diagnosis and Treatment program, immunization clinics, etc. Many mothers have started going to family planning. This is a help to the program financially and to the recipient. But what about the provider?

He sees fewer patients who are doctor-hopping, more patients come to his office and fewer bother him at night from the emergency room. He can do a better job by seeing the patient on a regular basis. He sees patients on a timely basis and can help keep them out of the acute hospitals. He gets to know a family rather than see a stranger in the emergency room. He also sees fewer patients on a "too frequent basis." When a patient sees several doctors and receives medication from each one, what are the chances for a drug interaction? How much easier it is for the doctor to know

Figure 8

State of Texas
Department of Public Welfare

May 1

RECIPIENT HEALTH CARE EDUCATION
COUNSELING FORM

CAT./CASE NO	CASE NAME
2-000002	Mable Smith

REMARKS: This was our ninth interview with Mrs. Smith. She said she had to take her daughter Sandy to the emergency room at Memorial hospital early in the morning after she was sick all night. They treated her and made a clinic appointment. They told her that Sandy had high blood pressure. Mrs. Smith said she had taken the children to Dr. Jones before he died. We advised her to get a doctor for the children and she said she would take them to Dr. Brown.

She goes to Dr. Brown twice a month for treatment of arthritis with medication, and to Dr. Green once every other month for a heat therapy treatment. She asked about the possibility of Dr. Brown giving her this treatment, but he does not have the equipment to do so. We told her the doctor must certify the visit as medically necessary. Mrs. Smith's Medicaid usage has stabilized, therefore, medical record books were issued and she was removed from our

RECOMMENDATIONS

Counselor _____
Social Worker Counselor

We are disenrolling Mrs. Smith because she has demonstrated an improved medical usage pattern in that she is seeing her doctor for medical necessity only. She follows through in doctor - recommended home treatment for arthritis. The heating pad which we obtained for Mrs. Smith has proven to be very useful and effective. Due to the chronic and debilitating nature of rheumatoid arthritis, frequent medical care will continue to be necessary.

_____ R.N.
Nurse Counselor

COUNSELING TIME
12/10/76 at 2:30

_____ _____
Counselor Date

THIS INFORMATION HAS BEEN DE-IDENTIFIED.

all medications his patient is receiving when prescribed by him.

It is nice to know that the single most important thing that came out of that infernal machine, the computer, resulted in improved health care for the recipient. He may even be able to get off the program.

As a physician, I appreciate the above. As a taxpayer, I saved a buck. Maybe the computer isn't so bad after all. If these unusual computer people continue to gin out data which becomes information, we may be able to use it after all.

In looking over our data in a far-removed area from what we have discussed, I noted that we were paying for a patient who was supposedly in a nursing home and an acute care hospital at the same time (same dates), and one or the other was charging when they should not be.

We started a dual-confinement tape which translated to me that we were paying for the same person both in a nursing home and in a hospital by the same dates of service. Well, we started recouping some money.

We will carry this a little further. We also noted that we were paying for drugs for the same patient both from our Vendor Drug Program and in the emergency room of several hospitals.

Again, when we ran our profiles we compared the dual tapes of our different programs. It became obvious that in some instances we are getting ripped off.

When you look at each program, everything seems to be in order with either an individual provider or recipient. When you dual run your tapes, you may well find out that the data or profile accumulated there demonstrates that you may well be paying for one patient in two different places, you may be paying for drugs from two different sources, and many other such things.

Now we have a very unique program because we have in one sense a fragmented system. We have many services which are covered in-house and, like very few States, have many, many services covered by contract. For example, we pay our own nursing homes, our own vendor drug, our special services which include hearing aids, transportation, adult dentures, arrangement through which we paid a per capita premium to cover many services including physician services, inpatient and outpatient hospital services, eyeglasses, emergency ambulance, etc.

Each program is responsible for its own utilization review according to a pre-established plan. Our Surveillance/Utilization Control Division (S/UC) brings all of the tapes together, runs one against the other and comes out with information for management reports, etc.

We have many professionals in S/UC, including nurses and a physician, to evaluate this data. Any abnormality not solved by the physician director after the nurse evaluation, is referred to a program review committee. It is then assigned to the appropriate division be it our investigators, financial, or whatever for follow-through. As a result of our computer runs, our profiling, our ranking by any way you want to go, we are able to pursue proper evaluation of each program, provide proper management reports and a proper follow-through for investigation, prosecution, recoupment, or whatever.

When you really think about what we have said, I think you will realize that the computer is only a tool and data is totally worthless unless it is properly evaluated and properly used.

Too many times the data system goes its own way and cares little for the user. Our purpose is to turn the computer into a valuable tool for the user.

Thank you very much.

John F. Field, B.S., D.D.S.
Vice President
California Dental Services

Delta Dental Plans Quality Assurance - A Working System

A review of the literature on quality assessment, quality of care, quality control, quality assurance, etc., is bound to leave one with a considerable degree of confusion. Almost without exception the documents from dental educators are aimed at the controlled environment of the dental school or State board dental examination. The writings from the practicing profession by and large address quality from a philosophical viewpoint, directed to the reader-practitioner's conscience in an effort to encourage him to provide a higher level of care. Writings from the Public Health sector generally point out, through well designed and researched studies, only what someone should be doing. Those few papers available from various prepaid dental carriers almost always address control of utilization and cost of programs rather than quality assurance.

All of these are worthwhile endeavors and all play some role in quality assurance, but the unanswered question is what is anyone really doing about quality assurance, beyond writing about it or threatening or cajoling the dental practitioner - the primary provider of dental care - to improve the quality of his

services. The purpose of this paper is to impart to the reader what the Delta Dental Plans, and specifically, California Dental Service, are doing, can do, and plan to do.

Background

California Dental Service, a service corporation, is a member of Delta Dental Plans Association, a nationwide federation of dental service plans operating in 47 States and administering programs in 50 States. Last year approximately 30% of all the prepaid dental care in the United States was administered by Delta Dental Plans, amounting to over $390 million dollars in dental services.[1] In a unique pilot program, California Dental Service, the largest of the Delta Dental Plans, has for the past four years administered the dental portion of the State Medicaid program on a "risk-taking" basis. Each year, the State of California Department of Health and CDS have negotiated a set rate to be paid by the State for dental services for each of the nearly 3 million eligible beneficiaries. CDS, through California dentists, has provided necessary dental services as specified under the terms of the contract with the State, assuming the risk for any financial deficits that might occur, as well as the responsibility for quality assurance.

When addressing quality assurance as it relates to the activities at CDS, it is paramount to remember that over 13,000

California dentists, or over 90% of all practicing California dentists, are participating members in California Dental Service and have agreed as part of their membership requirements to provide services to patients covered by CDS contracts in accordance with the standards of Accepted Dental Practice. This membership agreement provides CDS with the unique opportunity to undertake a quality assurance program with the full expectation that all services will be satisfactorily performed. All CDS programs, and therefore, participating providers, fall under the provisions of State health care legislation requiring provision of quality dentistry.

If a quality assurance program is to be effective, it must be enforceable; otherwise it is sure to fail.[2] The dentist's participating membership, his contract through CDS to group purchasers, and legislation mandating quality care under these programs provide not only an impetus beyond individual professional integrity, but the absolute necessity for assurance of quality dentistry to patients, group purchasers, and State agencies. These particular arrangements and requirements are, I believe, unique to the private sector, which provides the vast majority of all dental care in this country. To fully appreciate the scope of the CDS quality assurance endeavor, it is necessary to realize that CDS provides dental prepayment coverage to nearly 5 million Californians, and each year CDS

processes almost 3 million Attending Dentist's Statements (claims) from providers of dental care. We have been doing this (although not to this extent) for over twenty years. As one might imagine, a rather sophisticated claims processing system and electronic data processing system have evolved. The accumulation of data is enormous. As an example, millions of amalgam restorations are provided each year and are individually identifiable.

Quality assurance through CDS may be divided into three closely allied yet functionally different areas of activity: (1) CDS in-house activities; (2) activities occurring outside the headquarters, either controlled by, or in cooperation with, CDS; and (3) research activities, located both inside and, to a lesser extent, outside CDS.

(1) CDS In-House Quality Assurance

During processing, claims are subjected to an initial review of services by a staff of highly skilled and trained dental auditors, who have had dental office experience as dental assistants. Their primary function is to relate the services proposed or provided to individual contracts and then forward any claim which meets a series of pre-selected criteria to a professional dental staff of twenty-five full-time general practice and specialty consultants. Approximately 10% of all claims meet these criteria, and are professionally scrutinized utilizing accompanying radiographs.

There is ample reason to believe that for practical purposes, the assurance of quality in dental care can be partly accomplished through radiographic review,[3] supplemented, if necessary, by clinical examinations.

All claims processed, professionally reviewed or not, are subjected to extensive computer history cross-checking to determine any procedures that are being repeated or indicate an unusual pattern of treatment or non-compatible services. Information regarding the services provided are computer stored by both provider and patient identification codes. This serves as a basis for future history cross-checking, as well as providing a consultant reviewer access to any previous patient history when reviewing radiographs and current treatment plans.

CDS agrees with the viewpoint that "the specific dentist should be the focus of attention for quality."[4] To provide this focus, one must initially build a "first phase" profile of each dentist provider. First the practitioner's procedural utilization, that is, each procedure performed, is computer captured in a Dentist Master File, which is then used, among other things, to build a picture of services being performed by each provider. This "first-phase profile" is then analyzed and any unusual utilization patterns are noted for further examination and follow-up. This computer file (Figure 1) is

REPORT NO. CD0601001-1 CALIFORNIA DENTAL SERVICE DENTIST MASTER FILE 01/18/77 PAGE

LICENSE	NAME AND ADDRESS				HEALTH LEVEL DENIED		RIGHT FAC		MISC CODES 2. 3. 4. 5. 6. 7. 8			SPECIALTY CODES 1. 2. 3 4. 5.		YTD EARNINGS		YTD RES DED		DEP
	PRO AMT	YTD	FREQ	PRO AMT	YTD	FREQ	PRO AMT	YTD	FREQ	PRO AMT	YTD	FREQ						
	250 040			252 025			262 025			291 040			461 020					
	452 025	170	10	453 025			472 090			473 150			474 025					1
	600 015	46	4	601 024			602 024			601 020			611 125	126		1		
	612 160			613 185	185	1	630 140			631 075			600 016					
	601 020	16	1	602 025			611 020	100	6	612 024	184	9	613 030	146		6		
	635 060			636 100			637 135	440	3	638 035	70	2	640 016					
	645 025	841	33	659 120			652 140			653 205	2,845	14	660 165	1,630		9		
	663 155	136	1	670 035			671 045			672 030	140	2	680 160					
	681 120			682 115			683 050			685 015			686 016	16		1		
	687 025			692 200			700 500	776	2	701 600	376	1	702 350					
	703 400			704 020			705 050			706 100			716 020					
	720 015	46	3	721 050	100	2	722 100	200	2	723 035	120	4	724 150					
	800 075			801 075			802 010			803 025			832 076					
[redacted]					0 0 0 3 0	00	0. 0. 0. 0. 0. 0.			00 00			1,629.34		13.74		$ 0	
	020 007			030 015			049 013			050 016	105	7	062 016	48		3		
	080 015			110 005	6	1	111 001	10	4	112 020	80	4	113 004					
	114 005			115 008			116 008	24	3	117 010	20	2	126 020					
	150 015			160 020			200 015	15	1	201 011	11	1	202 020					
	220 006			230 025			231 035			232 050			260 050					
	252 025			257 075			250 056			259 095			262 025					
	291 040			293 025			451 015			452 015	30	2	453 016					
	472 000			473 120			474 015			600 000	16	2	601 015					
	602 015			603 015			610 007			611 025			612 125	126		1		
	613 150			630 125			631 150			600 012	24	2	601 017	61		3		
	602 022	22	1	611 014	90	7	612 021	96	6	613 025	184	8	636 060					
	636 075			637 060			638 090			645 020			650 060					
	651 085			652 130			653 170			660 130	108	1	663 130					
	670 030			671 040			672 045			680 010			682 130					
	681 025			685 015			686 015			687 020			692 170					
	693 125			700 295			701 295	230	1	702 160			703 225	225		1		
	704 010	100	10	705 025			706 060			716 010			720 010					
	721 000			722 075	140	2	723 015			724 065			800 046					
[redacted]					0 0 0 3 0	00	0. 0. 0 0. 0. 0.			00 00			4,174.29		31.11		$ 0	
	020 015			030 025			049 014			050 018	198	11	062 018					
	080 012			110 006	16	3	111 003	9	3	112 025	200	8	116 011					
	117 012	10	1	150 025			200 013			201 013			202 020					
	220 005			230 026			231 035			232 045			260 026					
	252 026			259 050			262 075			291 040			461 020					
	452 025	36	2	453 035			472 075			473 000			474 020					
	500 012			601 025			602 026			603 016			611 090					
	512 116			611 140			600 016			601 018			602 020					
	611 010	70	5	612 024	268	12	613 028	136	6	635 095			636 115					
	637 135			638 050			640 015			645 022	490	26	650 090					
	651 150			653 115			653 165	1,215	7	660 140	1,060	14	661 140					
	670 030			671 040			672 050			673 070			680 140					

Figure 1

then compared against another file showing the number of patients involved. Ratios of procedures to one another or to patients are computer calculated and compared against a Statewide norm. Providers showing patterns of utilization falling one or more standard deviations outside this parameter are identified for further observation.

In the second phase of building a profile, any procedures that are computer identified as having been previously performed or are noted by a reviewing consultant as having failed within contractually specified or unusually short periods of time, are also recorded for computer entry into a Repeat Procedure Report (RPR). Computer entry is by dentist license number, patient identification number, procedure and claim number for retrieval purposes. This report (Figure 2) is reviewed quarterly for identification of providers demonstrating a high frequency of procedural failures. Once identified, all incoming claims for these providers are subjected to professional scrutiny. Combining the two reports, the Dentist Master File and the RPR report, results in a provider profile of utilization and failed procedures, or a "second phase" profile of narrowing interest.

Another phase in building the profile includes a random as well as selected letter audit of patients receiving care to solicit comments regarding their impressions of the care received.

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PAGE 199

PROCEDURE REPEATED BY DENTIST LICENSE NUMBER AND PROCEDURE NUMBER

BASED ON REPEATED REPORTS SUBMITTED TO DATE

DENTIST LICENSE	DENTIST NAME	REPEATED PROCEDURES	TC	X-RAY	CONSULTANT CONFIRMATION	LONGEVITY	REPLACED BY	SOCIAL SECURITY	R C	BIRTH DATE	CLAIM NUMBER
[redacted]		444	03		IN-HOUSE W/X-RAYS	2 - 3 YRS	OTHER DENTIST	556-38-4361	1	0330	430121008
		444	03		IN-HOUSE A/R	3 - 4 YRS	OTHER DENTIST	560-30-4963	1	1129	328451105
		703	1		IN-HOUSE W/X-RAYS	LESS 1 YR	OTHER DENTIST	568-30-4794	2	0320	623219807
	TOTAL NUMBER REPEAT PROCS -	3									
[redacted]		692	08		IN-HOUSE W/X-RAYS	1 - 2 YRS	SAME DENTIST	387-32-8407	2	0330	427315129
		693	07		IN-HOUSE W/X-RAYS	1 - 2 YRS	SAME DENTIST	554-26-2333	2	9999	502005708
		653	10		IN-HOUSE W/X-RAYS	1 - 2 YRS	SAME DENTIST	554-26-2333	2	9999	502005708
		660	04		IN-HOUSE W/X-RAYS	1 - 2 YRS	SAME DENTIST	906-90-2934	1	0143	432301531
	TOTAL NUMBER REPEAT PROCS -										
[redacted]		660	30		IN-HOUSE W/X-RAYS	4 - 5 YRS	OTHER DENTIST	281-03-1301	2	1129	233207704
	TOTAL NUMBER REPEAT PROCS -										
[redacted]		444	09		IN-HOUSE W/X-RAYS	3 - 4 YRS	OTHER DENTIST	518-24-6768	1	0330	317014610
		653	24		IN-HOUSE A/R	LESS 1 YR	OTHER DENTIST	559-54-7011	1	0742	531128104
	TOTAL NUMBER REPEAT PROCS -	2									
[redacted]		444	04		IN-HOUSE W/X-RAYS	3 - 4 YRS	OTHER DENTIST	458-74-3203	1	1142	329508806
		637	32		IN-HOUSE W/X-RAYS	1 - 2 YRS	SAME DENTIST	560-54-9103	2	0537	330444010
		693	07		IN-HOUSE W/X-RAYS	3 - 4 YRS	OTHER DENTIST	565-15-8126	1	1246	329216406
		653	08		IN-HOUSE W/X-RAYS	3 - 4 YRS	OTHER DENTIST	565-15-8126	1	1246	329216406
		653	09		IN-HOUSE W/X-RAYS	3 - 4 YRS	OTHER DENTIST	565-15-8126	1	1246	329216406
		693	10		IN-HOUSE W/X-RAYS	3 - 4 YRS	SAME DENTIST	432-36-4903	1	1227	323086902
	TOTAL NUMBER REPEAT PROCS -	6									
[redacted]		660	30		IN-HOUSE W/X-RAYS	LESS 1 YR	OTHER DENTIST	560-10-9038	1	0922	532148304
		653	13		IN-HOUSE W/X-RAYS	1 - 2 YRS	OTHER DENTIST	474-16-8919	1	0221	436020309
	TOTAL NUMBER REPEAT PROCS -	2									

Figure 2

Thousands of letters are sent annually and responses are analyzed to identify any areas of concern for further action by CDS. Patient response rate for these letters is remarkable, averaging over 50%. Statistical reports are compiled and providers are identified and entered into the profile. Letter audit reports are reviewed quarterly by a seven-member Standing Committee on Public Policy, which then forwards its recommendations to the CDS Board of Directors. All dental policy matters regarding the appropriateness of care are reviewed regularly by the Dental Policy Committee, a committee composed of licensed dentists who also serve as members of the CDS Board. Close liaison is maintained with the California Dental Association Council on Dental Care and the American Dental Association to continually review Accepted Dental Practice and procedures.

Any or all phases of the system thus far described may result in the use of CDS Regional Consultants for clinical examination of patients. Regional Consultants are described later. At this point it is important to note that computer technology, in-house review and the profile are rarely more than potential indicators of quality. Substantiation must be made through clinical examination of the patient or patients involved through the Regional Consultant Program.

(2) Outside Quality Assurance Program

CDS maintains a Statewide network of over 260 Regional Dental Consultants, practicing dentists, who clinically examine patients to determine if procedures to be performed are necessary and/or have been performed satisfactorily. These cases may be randomly selected or specifically chosen based on the profile as thus far described. Seventy to eighty thousand cases were clinically examined by these consultants in 1977. This program is coordinated through the CDS Professional Counseling Department, which then takes action appropriate to the findings of the Regional Consultants. Such actions may include refunds, correction of any dental care deficiences by the original provider, referral to Peer Review, State Board of Dental Examiners or legal action.

CDS maintains continuing cooperation with the California Dental Association Peer Review System. Cases are referred as indicated for resolution of disputes or for possible disciplinary action where poor quality services have been noted. Our liaison with the State Board of Dental Examiners has resulted in a number of disciplinary actions. CDS, of course, is routinely advised of all actions taken by the State Board whether directly involved or not.

All of this information is then incorporated into the individual provider data, including the data base analysis (Dentist Master File), RPR, and letter audit results.

The CDS-Delta system of quality assurance through provider profiles can best be illustrated and summarized by the following "funnel" diagram (Figure 3).

(3) CDS Research Programs - Other Quality Assurance Activities

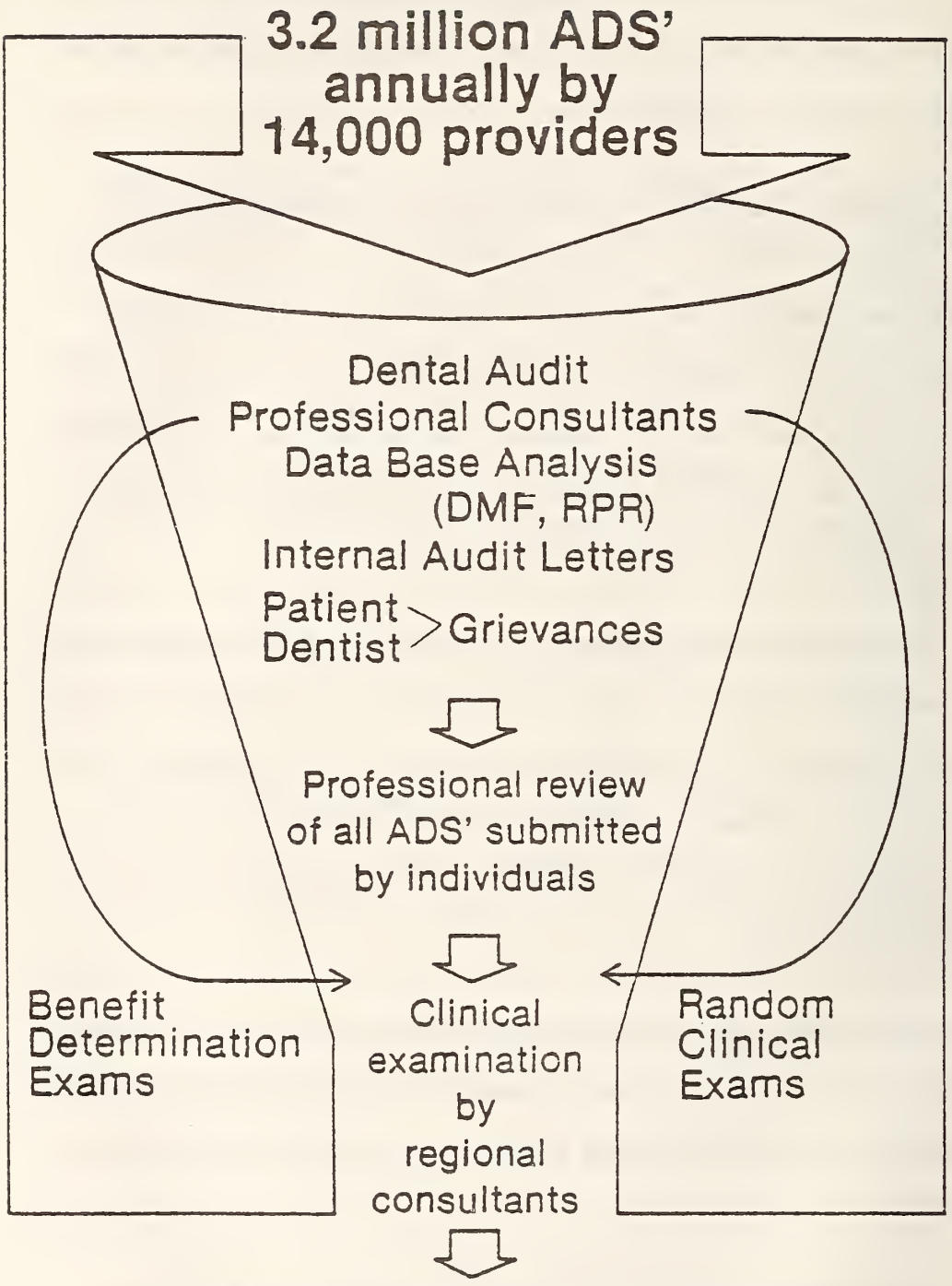
CDS involvement in the development of the Quality Assessment Manual published by the California Dental Association[5] is well documented and acknowledged. The completion of this project and its ultimate application to dental practice will go far to assess quality in an objective, systematic manner which should then further advance the quality of dental care.[6]

CDS is also participating in extensive research projects with the California Foundation for Dental Care by providing data, computer expertise and professional assistance to help determine the feasibility of computer identification of substandard care and the Foundation's studies to determine the longevity of various dental procedures.

CDS is also participating in the administration of the multi-million dollar research grant program provided through the Kellogg Foundation to further develop methodology in quality assurance programs.

The level of sophistication achieved by CDS in quality assurance activities is evidenced by the degree of interest

Figure 3



QUALITY ASSURANCE MECHANISM

Provider Identification

expressed in recent observation visits by officials from Germany, Denmark, the Philippines, Australia, New Zealand and the European common market, as well as officials from the United States Department of Health, Education, and Welfare, and the American Dental Association. CDS continues as the pacesetter in prepaid dental programs and we are justifiably proud of our unique accomplishments in the area of quality assurance. We anticipate even further expansion of the system and greater refinement of existing mechanisms such as the computer programs for failure rates of services performed and the analysis of the types of services provided for a large number of patients. By using our existing expertise and the capabilities of our data systems in conjunction with our professional staff, even further improvements in this important area will be realized in the future.

Summary

The American Dental Association, in reporting on its progress in an 18-month study with the HEW Bureau of Quality Assurance to identify and describe current assurance activities in dentistry,[7] identified what it terms an ideal quality assurance model and lists the following characteristics:

- An educational rather than punitive orientation;

- The capacity to measure quality of care received by a range of patients and provided by a range of dentists over time;

- Objectivity in applying professionally designed criteria and standards to care that is actually given;

- Non-disruptive to appropriate doctor-patient relationship;

- Cost effective in relation to realized benefits;

- Easy replication in other dental care systems;

- All ultimate clinical adjustments made on a genuine peer review basis;

- Effective, clearly structured follow-up procedure; and

- Full, equitable appeals mechanism.

California Dental Service's extensive professional involvement in quality assurance is demonstrated by a wide spectrum of activities briefly described in this paper and seems to answer the needs as expressed in the ADA model. While much work still remains, the programs and techniques already in existence place CDS and the Delta system in the forefront in the continuing efforts to provide and assure all recipients of dental services the best possible care.

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PANEL DISCUSSION: THE RELATIONSHIP OF QUALITY CARE AND COST CONTAINMENT

MODERATOR: Elsie M. Tytla, M.D.

Medical Advisor
Medicaid Bureau
Health Care Financing Administration

Elsie M. Tytla, M.D.

Introduction

Good Morning.

Subject of this morning's discussion is the relationship - if there is any - between Cost Containment and Quality of Health Care.

Government has already made the assumption that PSROs will moderate costs by eliminating unnecessary care through quality assessment mechanisms.

But what is Unnecessary Care? Isn't it in the eye of the beholder? One way though is to try to evaluate health services in terms of the cost-benefit ratio.

Health economists are insisting on this approach more and more because the health dollar is consuming an ever increasing portion of Federal and State budgets and yet we're not really sure that the Nation as a whole is any healthier.

Thrown into this equation are major ethical considerations. Not only how should we ration scarce health resources in applying

principles of equity and equality but also (even if funds were unlimited) is more care necessarily better care? What are we accomplishing by maintaining a heart lung preparation on a machine indefinitely? And calling it "saving a life."

On the other side of the coin, the question is always raised, if government insists that doctors think about costs of care being given, will the quality of that care be compromised?

This morning we will hear what the professional provider community is thinking and doing, at various points along the delivery system, in trying to answer these kinds of questions.

Much is going on - though not as well publicized as the fraud and abuse or the high volume providers.

Practitioners are just as concerned and are seeking answers.

As a matter of fact, a couple of our speakers just participated in a conference at the Harvard School of Public Health on the subject - "What can Physicians do about the Cost of Medical Care?"

Our open session this morning will provide an overview of the subject from several different perspectives and then the workshops will fill in the details and provide an opportunity for more discussion and perhaps debate.

Introductions for Quality Care
and
Cost Containment Module

1. Dr. Richard E. Bouchard of the Given Health Care Center in Burlington, Vermont
   -- A primary care group practice for approximately 12,000 patients
   -- A considerable number under Medicare & Medicaid
   -- Professor of Medicine at University of Vermont College of Medicine
   -- Program Director of Perceptorship Program in Primary Care
   -- Undergraduate and postgraduate teaching and research responsibilities

2. Dr. Edward Carrels of La Jolla, California
   -- Recently became Director of Research for Health Care Management Systems - A non-profit organization especially concerned with Quality Assurance Programs.
   -- Formerly was Assistant Vice President of Blue Shield Association
   -- Where his speciality was planning, budgeting & research in health care costs and insurance impact of technology.

3. Dr. Richard Schmidt of Cincinnati, Ohio
   -- President of the American College of Ob-Gyn
   -- Chairman of Committee on Professional Standards for ACOG
   -- Director of Department of Ob-Gyn at Good Samaritan Hospital (Has largest Ob service in Ohio).

4. Dr. Donald Hayes of George Mills, New Hampshire
   -- Presidential appointee to National Advisory Council on Economic Opportunity.
   -- Is a Board Certified Surgeon/member of AMA House of Delegates and its Council on Medical Service.
   -- Member of the AMA Commission on Cost of Medical Care to which Mr. Fullerton referred Monday evening, and on which he will report the major recommendations.

Richard T. F. Schmidt, M.D.
President
American College of Obstetricians
& Gynecologists

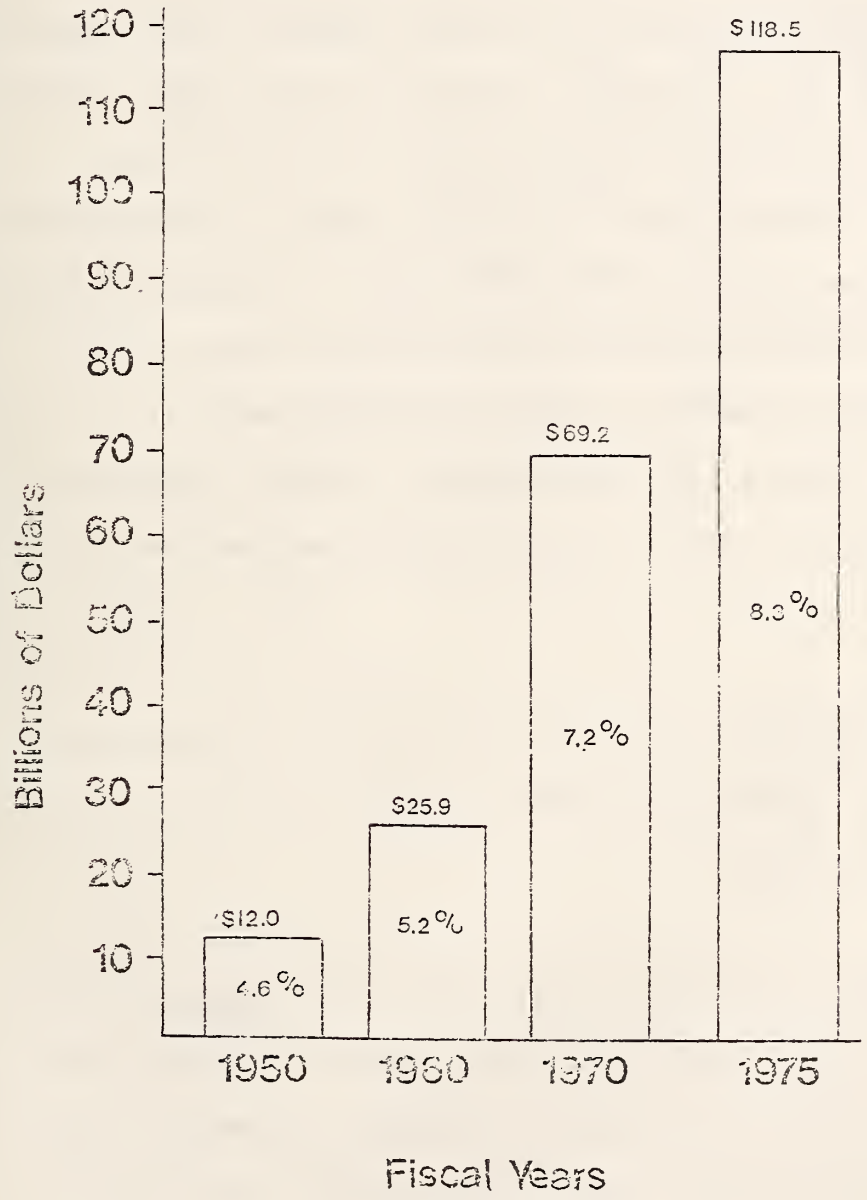
Rising Cost of Health Care - A Physician's Perspective

The organizers of this conference should be congratulated for the choice of theme, A Partnership in Reducing Health Care Costs, and for the insight that led to it. A cooperative effort by the providers, the intermediaries in funding, and hopefully by the recipients of health care, based on a common goal and a mutual understanding of the problems, offers a prospect of success which I firmly believe could not be achieved by unilateral action in any part of this triad. It is a privilege to be able to participate in this well-conceived conference and I thank you for the opportunity. I would like to present one physician's perspective of the problems that face us.

As we view with alarm the escalating health care costs which reached 118 billion dollars in 1975 and used 8.3% of the gross national product (Fig. 1), it is easy to conclude that health care providers, physicians, hospitals, drug companies and everyone else involved, are greedily pricing themselves out of the market. This conclusion is forcefully drawn almost every week in national television and in the press.

Figure 1

NATIONAL HEALTH EXPENDITURES & PERCENT OF GNP, SELECTED YEARS 1950-1975 (source: Social Security Bulletin, Feb. 1976)



However, when we look at the price of medical care as compared to other commodities and services (Fig. 2) we find it not near the top of escalating prices but actually 29th in a list of consumer price indices published by the Bureau of Labor Statistics. In this listing medical care includes physician's and other professional services, hospital services and drugs, both prescription and over-the counter. Ahead of medical care are such commodities and services as women's hair cuts, rib roasts, blue jeans, diapers, only a few of which are listed here. Proceeding upward we find that ham, attorney's fees (and there is no implication in the justaposition) and per capita income are well up the scale. It might be expected that fuel oil and coal would be near the top but they are still not in number one position. This questionable honor goes to the cost of a closely allied service, social security. This was as of 1976 and does not reflect the near doubling expected this year or next.

It would appear that in terms of individual efficiency and moderation in pricing, physicians, hospitals and drug manufacturers do better than most.

Obviously, this does not take into account volume of services and this is where physicians get into trouble. Looking at just a few items we find that outpatient laboratory testing more than doubled in the five year period ending in 1975. (Fig. 3) The

Figure 2

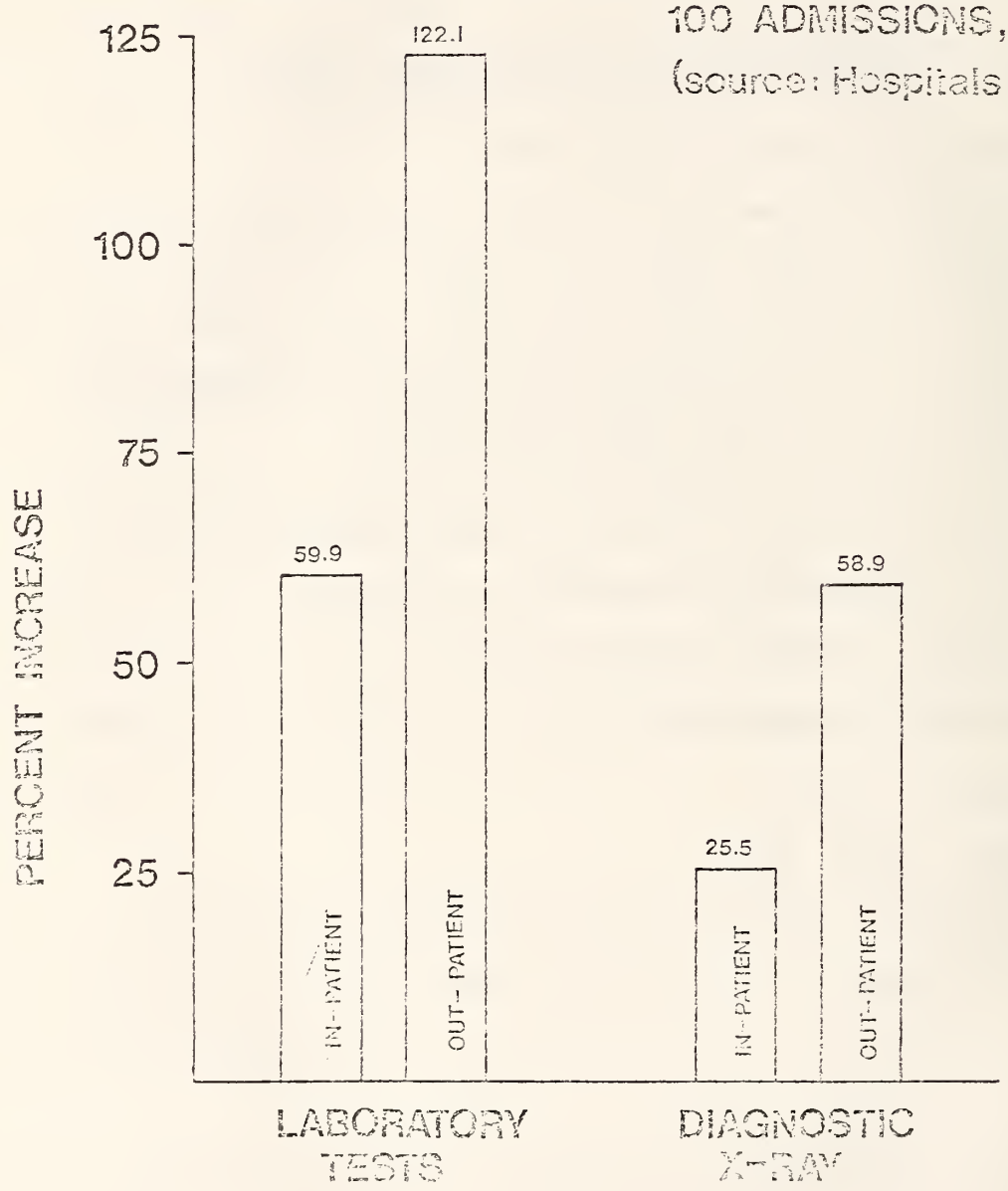
CONSUMER PRICE INDICES - 1976

1. SOCIAL SECURITY TAX 308.2
2. Heating (fuel oil, coal) 250.8
6. Living room repainted 225.6
9. Baby sitter 214.6
12. PER CAPITA INCOME 202.0
13. Heating fuel (gas) 200.9
16. Lawyer's charges 199.9
17. Whole ham 199.6
23. Diapers 190.2
29. MEDICAL CARE 184.7

Figure 3

PERCENTAGE INCREASE IN VOLUME OF SERVICES UTILIZED PER 100 ADMISSIONS, 1971-1975

(source: Hospitals, Oct. 1, 1976)



volume of outpatient diagnostic X-rays increased by almost 60%. However, before concluding too quickly that this is all due to over-utilization it should be noted that during the same period the volume of X-ray therapy increased by 95.2%. This service should be among the least subject to over-utilization; yet its volume increased substantially more than diagnostic X-rays or inpatient laboratory procedures. At least in some services actual need has apparently increased.

Nonetheless, the volume of services has unquestionably escalated in geometric fashion and the total bill threatens to exceed the amount that our nation has the capacity or willingness to pay.

It is the physician who presumably controls 80% of this usage and it is easy and even seemingly logical to point to him as the "bad guy." Since I am presenting the physician's perspective I have to tell you that he feels not like the "bad guy" but like the "fall guy."

Indeed if there is one identifiable factor in spiralling health care costs it is not found in the individual physician but in the failure of our society to recognize the massive changes taking place within it. The medical establishment has simply done no better than others in adapting to change.

I would like to point out very briefly what scholars in other fields see happening. Harold Adams Innis, his pupil, Marshall McLuhan, followed by a host of more recent observers, point out colorfully that through the "electric media" the globe has contracted to a village in which all of mankind is intimately involved in the movement of society, creating a kind of universal or corporate consciousness which moves along essentially on its own momentum. The fact of the medium becomes more important than the content; thus "the medium is the message." This affects all phases of our society but is particularly striking in technical fields. Through instant mass communication every fragment of scientific knowledge is immediately known to millions and every technologic advance becomes a part of the expectation of the corporate consciousness. In a very real sense technology creates its own demand. (Fig. 4)

A result of this process is a quite different kind of popular thinking that might be attributed to this progression: Instant mass communication leads large numbers of people to think in terms of mass effect. The concept of mass effect leads the individual to think of himself as a member of a class. (Fig. 5) Thus millions of people are led to think of themselves not so much in terms of their individual care but as members of a class; of a particular gender, color, age or economic class or a combination of these, such as post-menopausal women, oral contraceptive pill-taking women, each with its own set of goals, concerns, fears, and therefore expectation of the health care system.

Figure 4

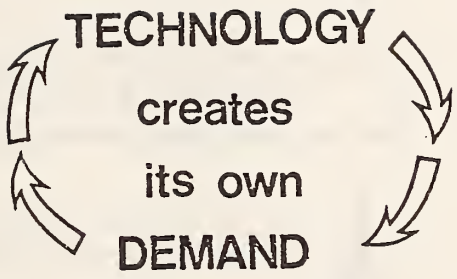
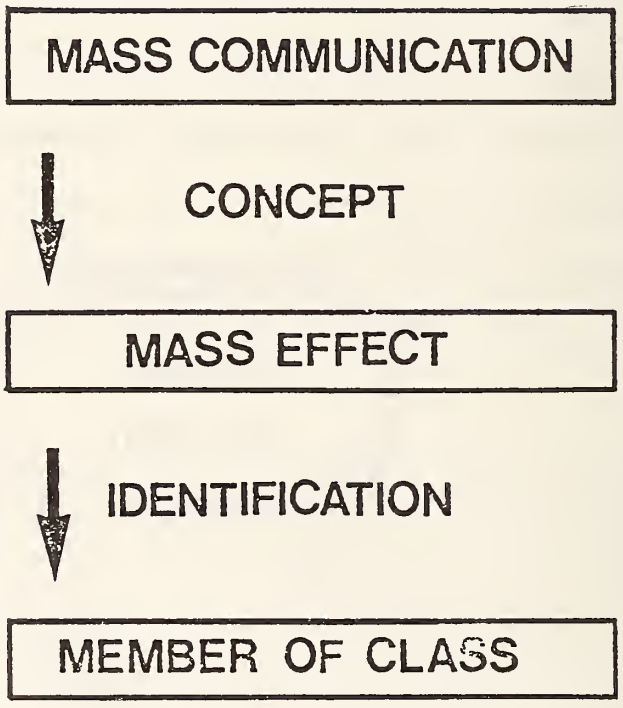


Figure 5


MASS COMMUNICATION
CONCEPT
MASS EFFECT
IDENTIFICATION
MEMBER OF CLASS

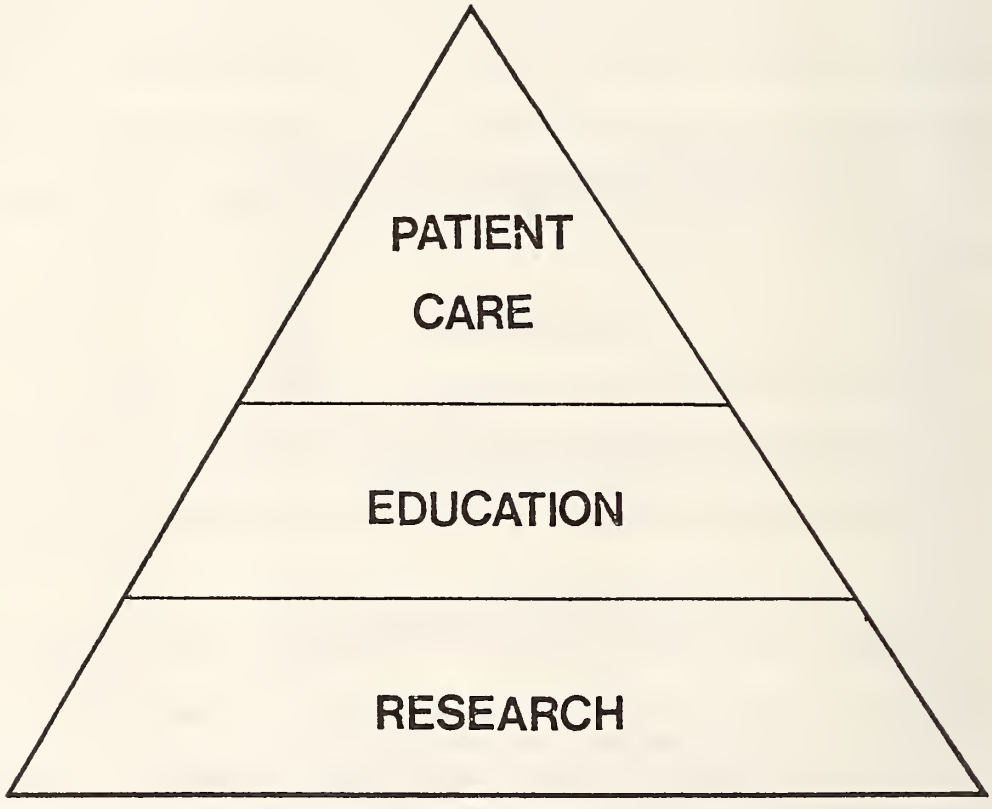
In broad perspective, the corporate consciousness now demands: 1) an equal standard of care for all, and 2) new technology instantly available to all.

Viewed in this context the expectations of our society cannot be met by individual physicians but somehow the health care system is expected to respond. Without question the most impelling of the demands relate to the quality of medical care, and to the cost of this care, now measured very visibly in terms of the total bill to the Nation.

The medical establishment attempts to cope with these difficult demands, all arising from a perception of mass effect, with a set of traditions geared almost solely to the individual patient.

In modern times the development of medical science and the profession of medicine has been organized about a three-tiered structure: At its base is the acquisition of knowledge and technical capability, i.e., research. On the next step is the dissemination of knowledge and skill, i.e., education. The end product, the focal point of the structure is the application of knowledge and skill to individual patients, i.e., patient care. (Fig. 6) This structure has formed the basis for the development of our scientific and educational institutions, and for virtually all of our learned societies and national medical organizations. This system worked well in

Figure 6



improving the care of individual patients but the net effect on the health and medical care of the Nation has been largely unassessed. Nor has cost been a significant consideration. Indeed it has been almost a dirty word in the context of advancing medical science.

Out of this system came a set of professional standards that are more attuned to the best that medical science can offer than to what is cost effective and quality effective. (Fig. 7) Strong reinforcement of these standards is provided by the media and by the courts, which now judge physician performance by the latest national standards rather than local custom.

Increasingly, standards of care are being set by legislation and regulation. Numerous examples are found in our own Department of HEW: Current HEW proposals for regulation of sterilization procedures on Medicaid patients require a 30 day waiting period for most elective procedures. If this regulation is implemented a significant increase in hospitalization and an addition of a significant number of second operative procedures can be anticipated.

The early drafts of the FDA's patient package insert for intra-uterine devices called for a separate office visit to discuss the information provided by the insert to be followed by a second visit to do the actual insertion. This provision was changed only

Figure 7

FACTORS AFFECTING PHYSICIAN JUDGMENT

Public Expectation

(Reinforced by mass media, by third party payer system)

Professional Standards

Undergraduate education
Graduate education
Continuing education
(Reinforced by mass media, by courts, by regulation and legislation, by professional societies)

Specific Legislation and Regulation

after the medical profession argued vigorously that this needlessly increased the cost of the procedure. Even with this provision removed, the regulation as it now stands, if followed carefully, adds significantly to the time and therefore the cost of each insertion. If proposed legislation were enacted to require the FDA to supply patient information inserts for all prescription drugs, a similar increase in cost could be anticipated for a large percentage of patient visits.

In the State of Ohio the legislature passed a bill, over the objection of every city health department in the State, requiring that a culture for gonorrhea be done on every prenatal patient. In the prenatal clinic of the hospital where I work positive cultures were found in only 1 in 500 patients, about the same ratio as when cultures were done on a selective basis according to clincial judgement. The cost of case finding was increased to about $2,000 per case as compared to an estimated $100 (1 positive in 25 selected cultures) prior to the legislation.

The objectives of the regulations are obviously good. However, it is also obvious that quality-effectiveness and cost-effectiveness were given minimal consideration if indeed they were considered at all. The very agencies attempting to deal with net cost are not only no better than physicians in controlling the use of medical services but actually prod the physician into increased utilization.

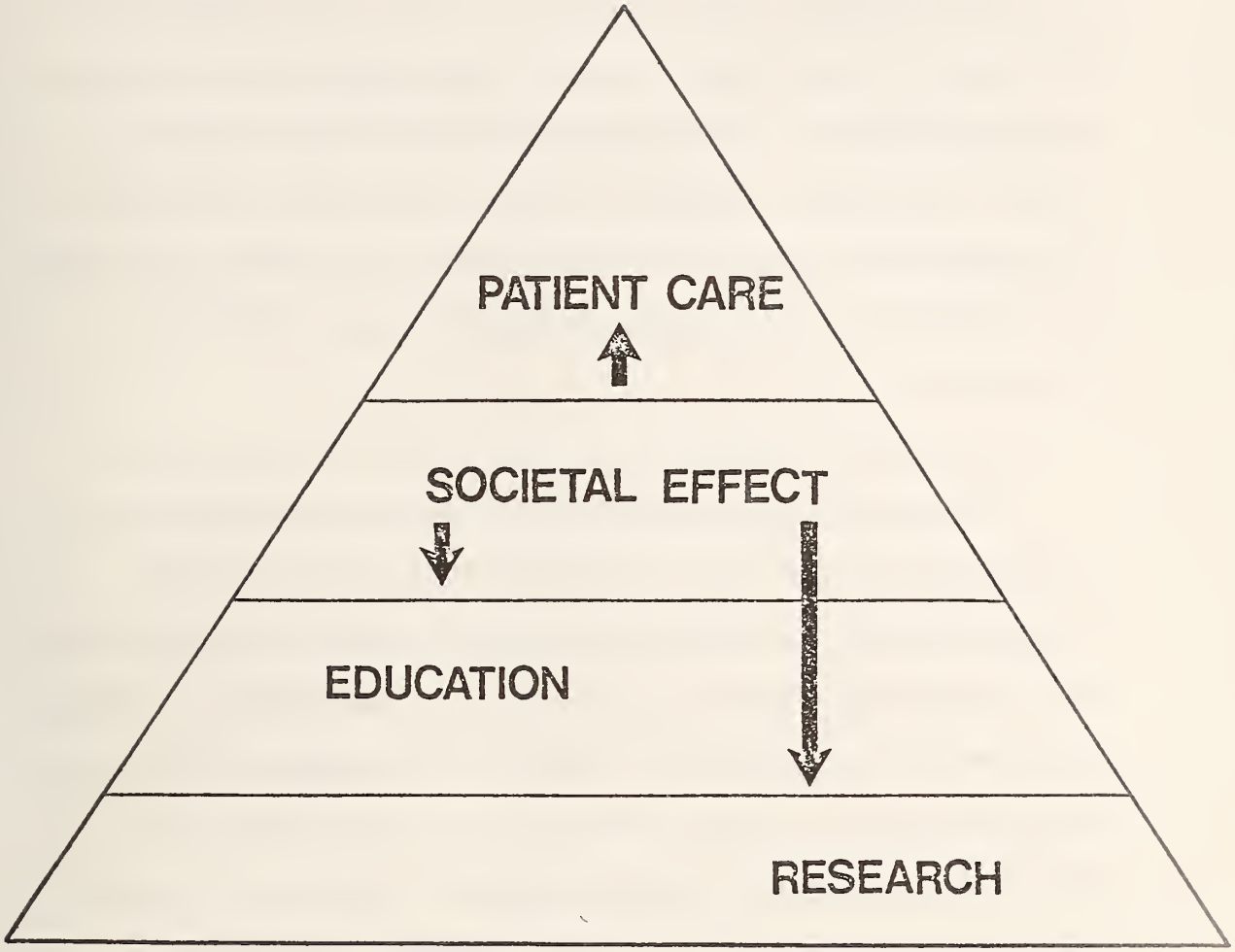
It is apparent that if cost is to be contained while preserving quality, the concept of mass effect needs to be taken into account in everything we do.

Regarding the organization of our medical establishment, we need to add to our traditional model a new dimension which might be entitled "Societal Effect." (Fig. 8) It is important that this dimension not be added to the top of the pyramid where it would supercede the welfare of the individual. Rather it should be inserted as a horizontal layer beneath "patient care" where it would have both a horizontal and vertical application. That is, consideration of societal effect should be a specific step along the way to the delivery of care to individual patients, not to dominate it but to affect it. At the same time, the anticipated net effect on quality of care and cost of care should have a prominent influence both on the choice and conduct of research and on the perspective in which new knowledge is disseminated in the educational process.

I believe the term quality/cost effectiveness should be spoken of and conceived as one word for truly these considerations are inseparable. If quality is the only consideration then cost cannot be controlled. If cost is the only consideration then quality must obviously be sacrificed.

In the long term, I believe what we as physicians need to do is

Figure 8



apply the yardstick of quality/cost effectiveness against all of the things we do: in the research laboratory, in our medical schools, in graduate education, where standards of care and acceptable patterns of practice are established. Quality/cost effectiveness need not inhibit our research or education effort but merely add a new and valuable dimension. Industries dealing in scientific and technical fields have dealt with this concept effectively for many decades and the proliferation of scientific knowledge has gone forward at a dizzying pace.

Gearing researchers and educators to the quality/cost concept in all of their activities is a necessary but long-term effort. Professional medical societies, largely oriented to the specialties and subspecialties, are the logical vehicles for immediate action and I believe they are beginning to recognize this. Many of these societies influence resident education; they design and conduct increasingly formalized continuing education. These are the areas where standards of practice are most immediately established.

Examples might be found in actions taken by our college, The American College of Obstetricians and Gynecologists, which has identified the assessment of quality and the control of cost as urgent priorities.

Five years ago our Health Care Commission, headed by Dr. John

McCain, developed and published a set of indices for peer review in our specialty. These indices established a reasonable yardstick against which to measure both the quality of care and the appropriateness of the procedures and medical services employed in the delivery of that care. With the development of the JCAH PEP Program this was expanded and revised for use in these outcome audits. Experience has shown this to be a valuable and accurate measure of both the quality of care and the utilization of medical services.

Six months ago this same Health Care Commission established a task force specifically devoted to studying the quality/cost effectiveness of individual obstetrical and gynecologic procedures. This is a long and difficult task but out of it I believe will come important information and recommendations that will affect the practice of our Fellows.

Recently I met with our educational wing, our Learning Resources Commission, to ask them to consider how quality/cost effectiveness might be incorporated into the continuing education process. A study group is now at work on this. Out of their effort I hope will come a set of guidelines for program planners and participants that will encourage them to incorporate consideration of quality/cost effectiveness into the construction of programs and presentation of material. This should not inhibit the amount or diversity of material presented but rather add the

quality/cost perspective.

We cannot yet point to a demonstrable result but I believe the direction of these voluntary actions is not only important but indispensable if the challenges of a changing society are to be met without destroying the freedom of action we all value so highly.

Physicians and their organizations perceive the problem and some, notably the AMA, have taken positive and promising actions. They constitute an invaluable, and I think willing, resource that should be tapped. I hope this conference is only a small beginning of an ongoing common effort and I urge that a permanent vehicle be established to continue and extend what you have begun here.

Edward J. Carels, Ph.D.
Director of Research
Health Care Management Systems, Inc.
La Jolla, California

Quality Care and Cost Containment - How can the Partnership Improve Quality While Containing Cost?

Let me begin by making a few assumptions or qualifiers:

Assumptions/Qualifiers

Health care costs cannot literally be contained. We must not kid ourselves into thinking we can or will roll back prices to the level of some less expensive previous era. It is more realistic to assume that we will slow the rate of escalation.[1] Some factors cannot be controlled. Inflation, population growth, and increased longevity together account for more than 2/3 of the increase in costs since 1950.[2]

Physicians and hospitals are wrongly being blamed for the problem of rising health care costs and are rightfully annoyed and confused about being singled out. Who is to blame for rising costs? Everyone. Hospitals, physicians, patients, labor and management and government.[4]

Acceptable reasons for admission to hospitals and rendering a variety of medical care services have extended far beyond the concept of medical necessity.

To some physicians cost cutting means: personal financial loss, increased mental and emotional stress, worried patients..., strained relations with colleagues and lower quality of care,[4] but it doesn't have to cause any of these.

Cost containment must begin in the minds of the physician and patient.

The Problem

Health care costs are rising faster than the overall rate of inflation -- in some years twice as fast. The problem is that they show no signs of stabilization. Some fear that left unchecked there is no end to the cost spiral. You're well aware of the facts and figures by now so I won't burden you with any more. They do conform to Murphy's Law - that everything you decide to do costs more than you first estimate.

Factors Contributing

There are a number of factors (exceeding 40) which contribute to rising health care costs. They can be broken down into three areas, but time won't permit a full exposition of each:

First, government (i.e., Medicare, Medicaid, Hill-Burton, Wage-Price Freeze) and fear of reimposition of reimbursement controls, causes fee

escalation, welfare transfer to health programs, etc. Second, factors external to the system (inflation, population slowdown, education, increased longevity, lifestyle, etc.). Third, factors within the system (fraud and abuse, increased specialization, new medical technology, etc.).

To illustrate, let's look at the impact on health of, for example, new medical technology. According to a report of the Cambridge Research Institute the following developments have occurred because of new medical technology:[5]

1. Disease trends are changing.
2. Public expectation has been raised.
3. Doctors and hospitals are now more susceptible to medical malpractice.
4. Questions about priorities and ethics are emerging.
5. Increased specialization is resulting.
6. Increased efforts at continuing medical education are now required.
7. Greater use of hospital outpatient facilities is encouraged.

As we wrestle with this problem, let's keep in mind some good things have occurred along the way: American life expectancy has increased dramatically, low income people have greater access to care, maternal deaths have decreased, polio has been conquered. Fluoridation appears to have halved dental decay among children at an annual cost of less than 20 cents per person. It has been estimated that the economic benefit of

measles vaccine over a 10-year period exceeded $1.3 billion. The savings in regard to lives saved and cases of averted mental retardation are incalculable. Improvements seem limitless: we now have commissions to define death, recombinant DNA and full body scanning.

Inefficiencies

There are inefficiencies though. The issue of potential inefficiency is addressed by Dr. David Rogers: "In an effort to be 'thorough' we often seem to substitute a grueling, somewhat mindless workup for one that is discriminating. I think we have pursued the technologic imperative to do all we are trained to do too far..., as our interventions have become more searching, they have also become more costly and more dangerous."[6] It should be emphasized that most of the studies I'm about to relate to you are isolated studies which raise more questions than provide answers to the problem. Researchers have uncovered the following apparent inefficiencies operating within the health care arena:

1. Physicians are not aware of the costs of the services which they generate.[7]
2. Large percentages of persons seeking medical treatment are really suffering from emotional tension and/or stress related diseases.[8,9]

3. Pertinent data is not always supplied in outpatient referrals.[10]

4. Utilization is related to defensive medicine.[11,12,13]

5. A number of researchers have looked at the increased utilization of diagnostic services with the following results:

   - Physicians show wide variations in use of lab tests.[14,15]
   - There is no correlation between frequency of lab use and either productivity or outcome.[16]
   - Only 5% of lab data is actually used in treating patients.[17]
   - Variation in lab costs generated by physicians is not related to clinical competency.[18]
   - There are wide variations in tests required upon admission by hospitals according to region and bed size.[19]
   - Among other things outpatient lab utilization has risen 122% between 1971-1975. Outpatient X-ray has risen approximately 58% during this same time period.[20]

6. There are large regional differences in hospital utilization,[21] and surgery rates.[22,23,24] Average hospital stays were found to be longer in the Northeast than in the West.[25] Supply of general surgeons was found to be related to surgical rates at all levels of complexity.[24] Needless surgery has not been defined nor quantified with any reasonable degree of accuracy.[26]

Of possible interest to Medicaid administrators -- after they see a doctor, low income people average more visits than those of higher income. While great improvements in health care for disadvantaged groups have occurred over the last 20 years, these groups are still not equal to the remainder of the population. In order to be equal they may even have to exceed higher income groups in their use of services to compensate for a greater rate of illness and disability.[29] This adds to the health care cost picture for Medicaid.

Costs vs. Quality

Attitudes have contributed to the problem. Many believe that costs and quality are mutually exclusive. They are not. Concern over quality of care and cost is not new either. Hammurabi's Code, Alexander the Great, and the British plantations in Virginia (1646 A.D.) addressed fee schedules and proper utilization of drugs and services. Concern over quality began after the publication of the Flexner study of medical education in 1910. A group of surgeons who were precursors to the American College of Surgeons suggested that the quality of care should be determined by examining the results of care. It was the physician not government or the public who took the first steps towards assurance of quality of care for the American populace.

Similarly, physicians in the Pacific Northwest created Blue Shield following the development of Blue Cross in 1929 in Dallas at Baylor

University Hospital. Thus, doctors first addressed the problem of costs. As medical knowledge advanced physicians either forgot or justifiably neglected the question of rising health care costs.

Lewis[30] has suggested that there are three sets of cost quality curves which describe the relationship between costs and quality. The first is linear and positive. It suggests that the better the quality, the higher the cost. The second curve follows that of the scatter diagram, which shows no association between cost and quality. Here we have many self-correcting illnesses. An example would be screening where research has failed to confirm a survivorship benefit to those who had access to it.[31,32,33,34] Brooke[35] points out that if we assume that 1/2 of the 80 million people who suffer from colds annually are given optimal quality of care on treatments of all sore throats to avoid late complications of infection, the total cost would approach $4 billion. Is this what's meant by good quality care? Can we afford it? Don't most people with colds get better without any medical care anyway?

The final curve is quadratic in form. In this case, it is possible to improve care with more expenditures, but with marginal gains remaining quite small. While more research needs to be done to match treatment paradigms with each curve, it seems apparent that in certain instances we are not receiving a concomitant increase in quality for each dollar spent.

Another study suggests that changes in medical technology tend to be cost raising rather than cost saving. Results showed an increased number of diagnostic X-rays per case (from .7 to 2.0) and an increase of lab tests per case (from 5.9 to 14.8) between 1951 and 1971. There was a steady increase in diagnostic tests per diagnosis.[36] These authors[36] raise several questions:

1. Is a patient with perforated appendicitis really better off when he gets almost 6 times as many lab tests as he did in 1951?
2. How much better off is a child with a broken forearm who has it reduced by an orthopedist instead of a general surgeon?

Research has also raised other questions:

3. How much has the increased use of coronary care units improved the outcome of myocardial infarction?
4. Is prophylactic tonsillectomy and adenoidectomy useful in relieving allergy, colds, and bronchitis? Some don't think so.[37]
5. Why do surgical claims decrease 9% or more following institution of second opinion programs while surgical rates generally are increasing?

At this point, I can sympathize with the medical school dean who addressed the convocation by saying: "50% of what we taught you is wrong; trouble is we don't know which 50%."

A bold question is raised by President Carter: "Can cost savings actually improve quality of care?"[39] Perhaps. A pioneer program at the Blue Shield Association called Medical Necessity will attempt to do just that. The program is aimed at discouraging payment for unproven procedures, those of dubious usefulness, redundant procedures and those unlikely to yield additional information through repetition. With the expert opinion of physicians from the American College of Physicians, American College of Radiology and the American College of Surgeons, the following appear to be of dubious current usefulness: basal metabolic rate, protein bound iodine, ballistocardiogram, phonocardiogram with interpretation and report, uterine suspension, etc., and 37 others.

Rising costs can affect quality of care in some totally unexpected ways. Rising premiums have encouraged many people to reduce their scope of coverage. 88% of those leaving Blue Cross - Blue Shield mentioned cost as the primary reason for leaving.[40] It is possible that people who reduce coverage to save dollars frequently forego needed treatment because of lack of coverge. Additional research must be carried out to detect what kinds of utilization patterns such coverage reductions are causing.

Unnecessary duplication of medical technology and/or physician ownership of same creates disincentives for both cost and quality of care. Fewer than 20% of all hospitals performing cardiac surgery

perform the four to six weekly operations necessary to maintain minimum standards of quality.[34]

Medicine's Impact on Health

Most attempted medical remedies proceed on the assumption that more is better. More access, medical care, insurance dollars, diagnostic screening, etc., is assumed to improve health. Physicians have been trained to do all they could for each patient. If your mother was sick, you and I wouldn't want it any other way.

Yet as we look at medical care in the context of overall health of this population one thing becomes apparent. Medical care has a very limited impact on health. Medical care ranks 5th behind genetics, nutrition, life-style, and the environment.[41] Good practices concerning smoking, weight, drinking, hours of sleep, regularity of means and physical activity may be more important than medical care so far as longevity is concerned.[42] Dever illustrated the point nicely by estimating the impact of the system (including medical care), environment, human biology and lifestyle on mortality. He found that lifestyle contributed the largest proportion for: diseases of the heart, cancer, cerebrovascular disease, motor vehicle accidents, respiratory disease, and diseases of the veins, arteries and capillaries. It is interesting to note that the Federal government allocates 90.3% of its expenditures for the system and only 1.3% to disease prevention.[43]

Goldbeck offers a disquieting summary: "Changing or improving health in this country will not come from expanding insurance to all citizens, not from increased technological innovations, not from increased or better distributed manpower, not by massive screening programs for all major diseases but rather drastic changes in life-style."[1]

Solutions

Many "solutions" have been tried over the years: Insurance has tried contract limitation, medical necessity clauses, coordination of benefits, benefit exclusion, fee freezes, and second opinions to name just a few. Other "solutions" have been legislated: PSRO, UR, Certificate of Need, etc.

One characteristic of nearly all of the solutions attempted thus far is that they have failed to do the expected, namely cut costs. It seems there is an economic equivalent to Newton's Law: "For every action there is an equal and opposite reaction." Look what happened with wage, price controls. PSROs and HSAs were supposed to help cut health care costs but can they? Per diem rate setting can penalize the more efficient hospital where the length of stay is shorter. Certificate of need has diverted rather than checked hospital investments and has had a negligible impact upon patient costs.[44]

Expanding outpatient benefits has not always produced concomitant savings in the hospital.[45,46,47] Attempts to reduce unnecessary lab testing has shown that frequency of ordering can be curtailed.[14, 15] However, reducing the number of tests ordered per patient does not cut the average lab costs per admission unless overall lab costs are reduced proportionately.[48] Merger and reductions in the physical facilities may avoid capitol investment but they only reduce operating costs when individual departments cut expenditures for manpower and supplies.[48] Indeed, HMOs are the only attempted approach which has produced documented savings without real compromises in quality.

Two explanations for these failures may be offered. First, many contributing factors are out of control. Second, most of the solutions have been univariate approaches to a multivariate problem. They failed to recognize that the factors which contribute to rising costs are not mutually exclusive. They are interdependent. The whole is equal to more than the sum of the parts and this interrelationship of factors must be taken into consideration when working on a solution.

Solution Strategies

It is recommended that future solutions consider three things. First, they should utilize cross impact matrices.[49] This permits us

to ascertain potential interactions (cross impacts) among individual factors by assigning weights and probabilities to each cause of action working through the matrix and measuring what impact that action will have on each and every other factor in the matrix. An explanation of the exact process of cross impact matrices takes us beyond the scope of this presentation.

Second, it is recommended that proposed solutions be viewed in terms of their impact upon: a) patients, b) physicians, c) hospitals, and d) the delivery system.[50]

The third strategy is to stress win/win solutions.[51] Too often compromise or inaction are the end results of difficult to solve problems. Such has been the case in health care. Physicians and hospitals rightfully want the best possible care available for each patient regardless of cost. On the other hand, government, insurors, employers and patients want the highest quality care at the most reasonable price. If we keep both goals in mind we are more likely to arrive at win/win solutions. We must be prepared to accept the fact that we cannot supply high quality care at a reasonable price.

Physicians and hospitals have experimented with a number of cost saving devices, such as the use of computers to streamline record keeping and scheduling.

They have also made suggestions such as, keep daily log of medical decisions, write prescriptions for self care, print charges on order slips, eliminate useless tests.

The conclusion reached by the Council on Wage and Price Stability was that the private sector was the best source for a solution. I'd go further and say don't blame physicians and hospitals but challenge them to work with you in finding win/win solutions and you may be pleasantly surprised as I have been. They understand the problem and the system's inefficiencies better than anyone else.

Suggestions to Medicaid Administrators

1. Solicit physician input in solving your problems. Headlines like "HEW is tracking Medicaid cheaters" don't solve the problem. To be sure fraud and abuse exists in medicine too but many practitioners are maligned by the naivete of some Federal investigations.
2. Focus efforts on those areas where quality can be improved and costs truly contained. I'd start with evaluating diagnostic testing.
3. Understand the need for incentives in all human behavior. It is a disquieting but nonetheless true fact that people are unlikely to do something unless given a sufficient reason to do so. Provide physicians with some incentive to cooperate with you. Some doctors won't cooperate with such a program because they fear that if it "works" they will be stuck with it under NHI.

4. Be fair. Few professions have received as much scrutiny as that being received by physicians. I'm confident that the physician and hospital community will respond to the dilemma with meaningful solutions.

5. Teach physicians to be more cost aware.

6. Beware of instant and simple solutions. They have been part of the problem.

7. Correct misconceptions in the minds of the public.

I think the partnership can work more effectively provided there is improved communication and more involvement of providers in problem solution.

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Donald R. Hayes, M.D.
American Medical Association
Council on Medical Services and Commission
on Cost of Medical Care

Summary Report of AMA's National Commission on the Cost of Medical Care

As a card carrying member of the AMA and a member of the Council on Medical Services of the AMA, I suppose it might be said that I was invading enemy territory today. I don't really feel that way for I do believe that quality care at reasonable cost is the view of the majority of physicians as well as the government. As a matter of fact only recently the Council on Medical Services had a very productive meeting with Mr. Derzon, Mr. Tierney, Doctor Egeberg, Doctor Tytla and others from HEW where thoughts and ideas were exchanged in a cooperative atmosphere even though there were some differences of opinion.

The spiraling cost of medical care should be and is the concern of everyone. A recent poll of both consumers and providers of medical care indicated that the number one concern of both groups was cost. The percentage of the public so concerned was 67% - of the M. D.'s, 45%.

We are all aware of the many reasons for this spiral. To state a few - inflation, increased labor costs, improved and sophisticated technology, the need for increased personnel to handle the new equipment and administrate the various regulating programs, etc.

However, the most significant reason is, in my opinion, the increased demand by the public for nothing but the best and a total disregard for the cost - the latter due in great part to the philosophy "spare no expense, Doctor, my insurance will pay for it." Physicians hear this comment daily.

The development of third party payment with first dollar coverage has done nothing to encourage frugality particularly in hospitals but also on the part of the consumer.

Because of this growing concern, nearly two years ago the Board of Trustees of the AMA created the National Commission on the Cost of Medical Care and brought together a broad-based, multi-disciplinary group to see if they could come up with some answers to this most complex problem. Twenty-seven members were appointed to the Commission representing many segments of the economy with a stake in health care. They included representatives from business, labor, government, physicians, hospitals and insurers. I was privileged to serve on that Commission, which released its 30-page summary report containing 48 recommendations on reducing the cost of care just two weeks ago. With this diversity in the background of its members, I can assure you that our discussions were spirited.

The report has something to say to all concerned in the United States health care system, and I know that not all participants are

100% happy with every recommendation in the report. For example, parts of it run contrary to present AMA policy. I expect--and I hope--that it will generate constructive debate throughout the medical profession, in the hope of arriving at some solutions to this many faceted problem.

The Commission listened to presentations from government, members of the Commission, the Brookings Institute, and a wide variety of others.

We divided into four task forces: supply, demand, the market place, and technology. These groups developed their own reports with options and recommendations, following which the Commission met in plenary session and debated at length. The result is a 3 volume report containing the task force reports, the background papers, references and the final recommendation. All of the 48 recommendations were arrived at by vote - 51% being enough to have them accepted. Provision was made for a dissenting opinion by any member of the Commission. We believe that these recommendations have merit and deserve serious consideration by providers, consumers, and government.

It would be impossible for me this morning, within my alloted time, to cover all of the 48 recommendations contained in the report. However, the report is available and can be obtained upon request from the American Medical Association in Chicago. (The Summary Report is attached.)

I would like to review briefly with you some of the recommendations from the report that pertain to medical practice. In the past, physicians have considered primarily the medical needs of their patients. The Commission agreed that physicians must now take steps to make cost-effective utilization decisions without sacrificing the quality of care. There are a number of programs that can be undertaken within the health care system that are not dependent on major changes in the delivery mechanism. Some of these areas are as follows: it is argued that there is often duplication of diagnostic tests for a given patient among providers. One way to reduce this practice is to establish effective quality standards for ambulatory laboratory or X-ray facilities that would enable providers to rely on previous diagnostic findings when they come to use them in a new setting. It should be remembered, however, that some highly complex procedures must be repeated in order to assure that the patient receives the appropriate treatment.

Recommendation: Diagnostic Findings

Providers, working at the local level, should develop mechanisms for the sharing of diagnostic findings for a given patient in order to avoid duplication of expensive diagnostic tests and procedures.

Another area of interest is the result of recent experiments concerning second opinions prior to elective surgery. Studies have shown that the second opinions do not always recommend surgery. However, because there is no evidence to believe that second opinions are more

valid than first opinions, these results do not constitute sufficient evidence to conclude that there is excess surgery. But if some surgery is indeed inappropriate, the practice of encouraging patients to obtain an additional opinion may have the potential for reducing unnecessary elective surgery with some resultant cost savings. The long-range effect of such programs has not yet been measured. Second opinion surgical study projects should continue to be conducted.

Recommendation: Second Opinions Prior to Surgery

Third-party payers, working with providers, should undertake conscientious evaluation of the methodologies and the results of current experimentation with coverage of second opinions prior to elective surgery. The long-term results and general adaptability of such programs should be evaluated in terms of medical care quality, cost effectiveness, the cost and quality of alternative care provided in place of surgery, and the long-range medical implications for the patients who did not have surgery.

In a broader sense, physicians are demanders of health care as they make decisions on behalf of patients. In this role, physicians may recommend care that is considered inappropriate because it is not medically necessary or consists of expensive amenities. The decision to prescribe such care can result from patient preference, the form of payment, or physician attitudes regarding current and acceptable medical practices.

Recommendation: Inappropriate Medical Care

The medical profession and others, working together, should examine those factors associated with medical practice that lead to utilization of inappropriate care, and assume responsibility for informing providers and consumers of their existence and impact.

There are physicians who act in an unacceptable fashion with patients and their insurers as has been amply demonstrated by the experience of the Medicaid and Medicare programs as well as the private insurance industry. Because of a lack of disciplinary power, the medical profession has been virtually powerless to apply remedies.

Recommendation: Disciplinary Measures for Physicians

The medical profession should strongly encourage increased efforts to develop effective means for dealing with those providers of medical services who are found to be abusing or defrauding the health care financing or delivery system.

Some medically unnecessary procedures, such as duplication of diagnostic tests or greater hospitalization are performed due to provider concern about professional liability. Such defensive measures contribute to the increase in health care costs. An authoritative body of professional opinion might indicate to providers and courts alike that good diagnosis and treatment does not always mean that more tests and procedures should be performed. Cost-benefit criteria, as well

as medical-necessity and quality-criteria standards can, and should, be applied to the care and treatment delivered by all providers.

The Commission is aware of the presence of malpractice and negligence on the part of certain providers, and does not advocate that barriers be placed in the way of legitimate malpractice claims.

Recommendation: Defensive Medicine

A. Providers and courts should utilize guidelines of appropriate care -- based on considerations of quality, medical necessity, cost effectiveness, and allowing for the varying circumstances of individual cases -- for guidance as to what constitutes acceptable levels of performance on the parts of physicians and other providers.

B. The medical and legal professions, working together with third-party payers, should examine the feasibility and desirability of having the resolution of professional liability claims placed outside the traditional courtroom-jury setting.

Consumer price consciousness should also be strengthened at the point where care is sought or delivered. An established approach is to have the patient share selectively, at the time of delivery, in the cost of utilized services. Because this encourages the patient and the provider to become more aware of actual costs, the type, quantity, and quality of health care used could be more selectively planned. To

be effective, such a system must have an appreciable impact on out-of-pocket costs, be flexible enough to encourage early identification and treatment of illness, and be reasonably economical to administer. It is important that care be taken to provide a proper balance between price disincentives designed to discourage unneeded or unnecessarily expensive care and insurance incentives designed to encourage the use of needed and appropriate care. Further, cost sharing should be tailored to meet the needs of low income families.

Recommendation: Consumer Cost Sharing

Insurance policies should include provisions through which the consumer shares in the cost of care received, at the time of service for selected benefits and for selected groups, and in which employees share in group premium costs. In firms with employees represented by unions, the range can be established through the collective bargaining process.

To further demonstrate organized medicine's interest in quality care at reasonable cost the AMA along with the AHA and the FAH have accepted Congressman Rostenkowski's challenge to "do something" and formed a national steering committee of hospital people, doctors, insurers, consumers and others to develop goals and mechanisms for voluntary programs of cost containment in health care. To this end they are working to establish similar steering committees at the State level for implementation.

At their first meeting this week in Washington, D.C., initial guidelines to implement the national program were developed and will be distributed to all State and county medical societies in the United States within the next couple of weeks.

The AMA and the two national hospital associations are convinced that local voluntary efforts will serve the Nation better than any Federal cost containment program. It is our belief that you will be hearing a good deal about this program over the next couple of years, and I hope that many of you will be directly involved in making the program a success.

Thank you.

NATIONAL COMMISSION ON THE COST OF MEDICAL CARE

Summary Report

DECEMBER 1977

CHAIRMAN'S MESSAGE

The problem of escalating health care costs does not lack for attention. Health care providers, government agencies, the media, social scientists, consumer groups, business, labor organizations, and other concerned persons have made numerous statements and asked many questions on the subject. Answers have been more difficult to come by. The need for answers, however, has not lessened. The Board of Trustees of the American Medical Association established an independent Commission on the Cost of Medical Care mandated to provide a comprehensive overview of health care costs and possible approaches toward solutions.

The 27 members, drawn from a broad base of expertise, accepted the responsibility of fulfilling the assignments designated in the Charge to the Commission. Those six points were:

- A description of the health care delivery system;
- Identification of the factors underlying the rising costs of health care;
- A review and evaluation of existing research on the causes of health care cost inflation;
- An evaluation of the impact of pending or future health care programs on the health care delivery system and health care costs;
- Recommendations on policies designed to contribute to containment of health care expenditures while providing quality care to the public; and
- Recommendations and directions for future research programs, including detailed description of existing data bases.

The three volumes of the full Commission Report contain the work of the Commission. Without the time and attention of the members, this task could not have been completed. In appreciation for their efforts, I would like to thank the members.

Of course, without adequate support staff the project would have been equally difficult to accomplish. On behalf of the Commission, I would like to acknowledge the staff of the American Medical Association's Center for Health Services Research and Development for their participation in the Commission work. In particular, the members would like to name the following individuals who have made the journey with us: Joel Bobula, Norbert Budde, Toba Cohen, Philip Cotterill, Louis Goodman, Lyna Jensen, Jacqueline Leopold, and Edward Meeker.

Max H. Parrott, M.D.
Chairman

Members of the Commission

Max H. Parrott, M.D., Chairman
Past President,
American Medical Association
Mr. Brooks Chandler
Vice Chairman of the Board,
Provident Life and Accident
Insurance Company
Michael DeBakey, M.D.
Baylor College of Medicine
Texas Medical Center
Paul M. Ellwood, Jr., M.D.
President, InterStudy
Mr. Robert F. Froehlke
President, Health Insurance
Association of America
Sidney R. Garfield, M.D.
Founder, Kaiser Permanente
Medical Care Program
Robert H. Griffiths, D.D.S.
Trustee, American Dental
Association
Mr. Fred A. Hardin
Chairman, U.S. Railway Unions
Health and Welfare Committee
Donald R. Hayes, M.D.
Council on Medical Service,
American Medical Association
Ronald M. Klar, M.D., M.P.H.*
Director, Division of
Health Financing
Office of the Assistant
Secretary for Health,
U.S. Dept. Health, Education,
and Welfare
Ernest T. Livingstone, M.D.
American Medical Association
Mrs. Diane B. McCarthy
Arizona House of Representatives
State Representative, District 16
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Association
Mr. Walter McNerney
President, Blue Cross Association
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Consultant, Health Services
Mr. Joel May
Executive Vice President,
Health Research and Educational
Trust of New Jersey
Joseph P. Newhouse, Ph.D.
Senior Staff Economist,
The Rand Corporation
Hon. L. Richardson Preyer, M.C.
U.S. House of Representatives
Frank A. Riddick, Jr., M.D.
Medical Director,
The Ochsner Clinic
Russell B. Roth, M.D.
Past President, American Medical
Association
Mr. William E. Ryan
President, Blue Shield
Association
Mr. Roger C. Sonnemann
Vice President, Administration
and Employee Relations
AMAX, Inc.
Malcolm C. Todd, M.D.
Past President, American
Medical Association
Mr. Dudley Towne
Watson Clinic
Stanley S. Wallack, Ph.D.
Congressional Budget Office (to 7-77)
Brandeis University
Advanced Studies of Social Welfare
L. Emmerson Ward, M.D.
Chairman, Mayo Foundation
Mr. Victor M. Zink
Director, Employee Benefits
and Services
General Motors Corporation
Toba J. Cohen
Executive Secretary

*Dr. Klar chose not to vote in order to emphasize that the Dept. of Health, Education, and Welfare had already promulgated its positions, policies, and initiatives regarding cost containment.

INTRODUCTION

Health care—a most fundamental and personal need—is being examined in a new light. After years of emphasizing access to and quality of care, society is calling to question the cost of delivering this service.

Health care costs have escalated over the decade from 1966 to 1976 with annual expenditures climbing from $42 billion to $137 billion. Expenditures on health care have grown at an average annual rate of 11 percent. While a little over half of this growth is attributable to a general rise in prices, this escalation rate is faster than for the rest of the economy. The health care share of the Gross National Product, now 8.6 percent, could, at present rates of growth, rise to 10 percent, or more, before the next three years pass.

The question is not whether 8 or 10 percent is too much, the question is one of benefits and priorities. As society perceives the need to support other social programs, it becomes increasingly clear that change is necessary. After years of consumers wanting unlimited care; government promoting growth in the production of both providers and facilities; and physicians providing service based solely on quality, it is necessary to instill alternative behavior patterns for everyone. Changes of the magnitude necessary are best developed through the combined efforts of decision makers from the areas where health care is purchased, delivered, and used.

An awareness of the need to provide guidelines for these changes, and an acute desire to tap resources outside the profession, led the Board of Trustees of the American Medical Association to establish a Commission on the Cost of Medical Care. The 27 members were recruited from business, labor, the health care delivery sector, academia, the consumer area, and government, and charged with delivering innovative solutions to health care cost problems. They were asked to engage in the kind of interchange that would deliver recommendations.

At the first Commission meeting, in March 1976, the members reviewed the trends in health care prices over the last decade and set to work defining specific areas in the delivery of health care that impact on costs. The resultant list was divided into four major areas to facilitate further analysis: 1) the system within which care is delivered, 2) the factors affecting demand for care, 3) the supply and distribution of providers, and 4) the technological innovations that are impacting on health care delivery. The Commission members then divided into task forces for each of the four areas.

Each task force was charged with producing recommendations for change in its area and preparing a task force report for consideration by the Commission. Each approached this charge in its own way.

The Commission, as a unit, worked through a format by which it: 1) assessed the problem by reviewing the background material provided by the task force reports; 2) listened to presentations on selected topics and conducted discussions in plenary sessions; 3) made recommendations in the Summary Commission Report; 4) listed gaps in information in a future research agenda; and 5) provided allied information through a listing of available data bases and a collection of papers containing materials presented at plenary sessions or solicited from the selected authors.

The recommendations, contained in this section of the report, were agreed upon by a simple majority of the members. Any member wishing to express a formal dissent has done so. These reports are contained in appendix A of the full Commission Report.

Certain characteristics inherent in the health care delivery system affected all areas under consideration. The following discussion of this system, necessary to any analysis of costs, centers on the system's divergence from an economist's notion of an ideal market. Among the most important differences are the structure of health insurance and the associated subsidy effect; the lack of consumer and provider knowledge regarding the cost, efficacy, or necessity of specific medical procedures; and the potential ability of the provider to affect demand.

The current arrangements, while providing quality care to a wide range of consumers, have come under attack because of the rapidly increasing cost. The Commission defined two alternative approaches to the issue of cost containment: 1) strengthening consumer and provider price consciousness, and 2) expanding regulatory measures in an effort to exert widespread control over costs.

Strengthening price consciousness requires substantial restructuring of the incentives facing consumers and providers of health care. Some forms of regulation, especially public-utility type regulation tend to distort incentives for price consciousness. However, there is a useful role for some specific regulatory measures such as those designed to provide information to consumers and providers. A process of strengthening price consciousness combined with complementary regulatory schemes will lead, in terms of cost, quality, and access, to an optimal program of health care delivery.

In view of the ongoing discussions, in both the public and private sector, of the need to control health care costs, the Commission recognizes that it is advisable to effect changes in the current system. The report that follows represents the Commission's recommendations on what providers, consumers, insurers, and regulators should do to make the delivery of health care more cost effective.

STRENGTHENING PRICE CONSCIOUSNESS

The Commission examined two approaches for containing health care costs: strengthening price consciousness, and increased use of public-utility type regulation (e.g., controls on rates, revenues, and capital acquisitions). Both approaches have potential benefits. Reliance on market mechanisms can lead to cost-effective production of output, and permit consumer preferences to play a key role in determining what goods and services are produced.

Regulation, as a mechanism, can serve to avoid needless duplication of equipment in industries with significant economies of scale. In industries where well-functioning markets do not exist, regulation can provide a method for controlling price and/or revenues. Such control will determine the amount of resources in an industry and the distribution of output among consumers.

Both market-strengthening and public-utility type regulation have disadvantages. Sole reliance on price as a mechanism for determining access to care obviously has an adverse impact on the poor. Further, for a market to function well, consumers must be adequately informed about the prices, qualities, and efficacy of the alternatives (e.g., providers, treatments, and health plans) before them. Owing to the complexity of medicine, there is some doubt whether this condition can be sufficiently satisfied.

The disadvantages of regulation are seen in both practice and theory. Public-utility regulation has not usually been effective in reducing prices in other industries. It has been demonstrated that such regulation is a costly process that has often resulted in higher prices, less competition, and reduced levels of innovation. A fundamental problem with public-utility regulation, as it would manifest itself in health care delivery (in such terms as certificate-of-need legislation, regional budgets, and revenue limits), is that the regulator cannot possibly take the wide variety of consumer preferences into account when formulating policy.

In its debates on strengthening price consciousness and increasing public-utility regulation, the Commission recognized that each scheme had significant benefits and genuine drawbacks. After weighing each, it was decided that the most promising approach to cost containment, in the presence of insurance, is strengthening price consciousness. However, it is obvious that no market, especially one as complex as health care delivery, can operate completely free of regulation. Further, some mechanisms must be put in place to assure that no group of consumers is denied quality care due to inability to pay. A strategy combining elements of price consciousness and some regulation would remove many of the problems inherent in strict public-utility regulation. An important improvement is that total expenditures would be determined on the basis of individual decisions rather than by administrative fiat that would restrict individual choice. The greatest possible number of decisions about health care should remain with the individual consumer and provider as they best know what is required in each case.

Further, while the management of health care institutions should reflect an awareness of cost, it is necessary to emphasize that cost containment is not a goal in itself. The objective should not be to keep resources devoted to health care from growing, but rather to give those whose decisions affect health resources reason to take cognizance of costs.

Consumers would become more price conscious when choosing health insurance and health plans if, in the case of employer-provided plans, they were offered a wide range of alternatives, and if employer and government contributions for such alternatives were independent of total premium costs. This consumer price consciousness would encourage insurers and health plans to develop and implement more explicit incentives to hold down costs, because they would want to hold down the prices they charge for their plans.

Recommendation 1: Economic Incentives in Purchasing Insurance and Health Plans

A. New employees of firms that provide health care benefits should be allowed, whenever feasible, to choose among a number of health care programs offered to them by their employers, through certified carriers, including Health Maintenance Organizations. (Certification is discussed in Recommendation 7.) At periodic intervals, both old and new employees may change their health care program—choosing among the same options made available to new employees. In firms with employees represented by unions, the range of programs can be established through the collective bargaining process.

B. To give employees an economic incentive to shop for cost-effective health care coverage, employers who contribute to their employees' insurance premiums should do so through contributions that are the same for competing plans. In the case of plans, including public programs, whose premium cost is less than the contribution, the difference should be paid to the subscriber as a rebate or in the form of additional benefits. In firms represented by unions, the amount of contribution or the form of the rebate could be determined through collective bargaining.

C. In order to increase consumer price consciousness at the time of purchase of health plans or health care insurance, the current exclusion from taxable income of employer paid health insurance premiums and the current tax deduction for consumer payments for insurance premiums should be replaced with either a fixed dollar tax credit or deduction. The tax treatment

of payments for health plans and health care insurance should be identical for employer-provided and self-purchased programs.

D. Individuals who purchase health plans and health care insurance on their own should have plans made available to them for the same price, adjusted for actuarial and administrative differences, as that paid for employer-provided plans.

Consumer price consciousness should also be strengthened at the point where care is sought or delivered. An established approach is to have the patient share selectively, at the time of delivery, in the cost of utilized services. Because this encourages the patient and the provider to become more aware of actual costs, the type, quantity, and quality of health care used could be more selectively planned. To be effective, such a system must have an appreciable impact on out-of-pocket costs, be flexible enough to encourage early identification and treatment of illness, and be reasonably economical to administer. It is important that care be taken to provide a proper balance between price disincentives designed to discourage unneeded or unnecessarily expensive care and insurance incentives designed to encourage the use of needed and appropriate care. Further, cost sharing should be tailored to meet the needs of low income families.

Recommendation 2: Consumer Cost Sharing

Insurance policies should include provisions through which the consumer shares in the cost of care received, at the time of service, for selected benefits and for selected groups, and in which employees share in group premium costs. In firms with employees represented by unions, the range can be established through the collective bargaining process.

Price consciousness can also be raised by offering the consumer a choice among competing health care delivery arrangements. The Commission considered a number of schemes including Health Maintenance Organizations (HMOs), Health Care Alliances (HCAs), Variable Cost Insurance (VCI), and Health Maintenance Plans (HMPs). HMOs rely on prepaid capitation financing; that is, providers contract to deliver all health care services to subscribers for a fixed monthly charge. Capitation affects utilization of health care services primarily through the incentives it presents to providers. Those who have contracted to deliver services are at risk; consequently they have an incentive to deliver only necessary services. Moreover, HMOs must compete for patients partially on the basis of price, and so must be aware of costs. Considerable evidence exists to indicate that capitation systems can result in less costly treatment regimes, fewer cases of elective surgery, and lower hospitalization rates. Unfortunately, public policy has not been neutral between HMOs and fee-for-service practice.

However desirable, expansion of HMOs requires a large scale restructuring of the health care delivery system that cannot occur rapidly. Two experimental proposals, HCAs and VCI, are designed to achieve the beneficial effects of competition without requiring extensive reorganization of practice patterns. Both programs require little change in the way physicians practice, but would require changes in the way insurance is written. Providers would be experience-rated so that insurance premiums would reflect the costliness of the providers consumers choose.

Under Variable Cost Insurance (VCI), health insurers would offer policies that would be tied to specific groups of hospitals based on their specific cost experience. Those policies that provide coverage for the more expensive hospitals would have the more expensive premiums. Consumers, on consultation with their physicians, would be free to choose hospitals from those where their physician has staff privileges; however, the amount of their expenses that is reimbursed would depend upon their coverage. Because consumers would benefit from purchasing lower-priced plans, they would have an incentive to choose physicians associated with cost-effective hospitals. Accordingly, hospitals would have an incentive to contain their expenses in order to gain more attractive ratings. Physicians could, therefore, seek to alter their staff privilege arrangements and/or bring pressure upon hospitals to keep their costs down. Finally, even if consumers did not choose lower priced plans, the subsidy of those who use high cost providers by those who use low-cost providers would end.

Under Health Care Alliances (HCAs), groups of physicians would be collectively experience-rated according to their adjusted annual expense per patient. All covered patient-related expenses, including hospitalization, would be considered in arriving at an HCA's rating; adjustments for the sickliness of patients would be included. Because consumers could benefit financially by choosing the less expensive plans, physicians in HCAs would have an incentive to deliver care cost effectively and thus hold down their ratings.

A Health Maintenance Plan is also designed to provide financial incentives for cost-effective delivery of care. The HMP was instituted in Wisconsin in 1972 under the auspices of Blue Shield. The Wisconsin Health Maintenance Plan is designed to collect and channel practice pattern and cost information back to participating providers. In addition, the program is set up to place the participating physicians at risk for part of the cost resulting from their recommendations.

Based on the potential these alternative arrangements have for providing incentives for price consciousness, the Commission believes in the importance of pursuing the following:

Recommendation 3: Fair Market Health Plan Competition

HMOs have the potential to strengthen consumer and provider price consciousness by competing on the basis of services delivered and price. Policy should be neutral between HMOs and fee-for-service practices, and there should be fair market competition between HMOs and other provider and insurance systems.

Recommendation 4: Alternative Financing Arrangements

Experiments should be conducted to test the effectiveness of health care financing arrangements such as: Variable Cost Insurance (VCI), Health Care Alliances (HCAs), and Health Maintenance Plans (HMPs).

In order for consumers to exercise informed choice, conditioned by price consciousness, it is necessary that they be able to obtain information on alternative providers and health plans. To the extent HMOs, VCI, or HMPs are adopted, information on price will be available. However, if cost sharing is relied upon as a cost containment strategy, a special effort must be made to make information on price readily accessible. The Commission recognizes that it is considerably more difficult to provide information on quality than on price and, accordingly, recommends a major research program on this subject as well as the institution of certification, and periodic recertification, programs. These programs are designed to assure consumers that the certified providers, carriers, and health plans meet certain quality standards.

Recommendation 5: Regional Physician and Hospital Directories

On a voluntary basis, physicians should make available, in a regional directory, such information as prices for rather well-defined procedures, length of time required to obtain an appointment, willingness to accept new patients (or Medicare/Medicaid patients), institutional affiliations, and whether they are board-certified in their specialty. Hospital directories should also be available and include information on services offered and other information relevant to consumer choice.

Recommendation 6: Information on Alternative Health Care Plan Benefits

A. In order for consumers to understand the benefits provided by the alternative health care plans that they may buy, employers and unions should attempt to provide, in a format that facilitates comparison of services covered and exclusions, information on the alternative plans they offer. This should include the fraction of total premiums the insurer anticipates will be paid out in benefits and dividends for each plan.

B. In order to guard against abuses that may occur in the market, the concept of "Truth in Insurance," especially in the context of individual insurance, should be followed. Companies selling individual health insurance should be required to provide clear and concise disclosure material to consumers, setting forth the essential features of the coverage, including the fraction of total premiums the insurer anticipates will be paid out in benefits and dividends for each plan. They should further be required to provide policy benefits that are reasonable in relationship to premiums charged. If states do not enforce the advertising rules recommended by the National Association of Insurance Commissioners, federal legislation may be necessary.

Recommendation 7: Regulation of Insurance Carriers and Health Plans

Organizations financing health care services (e.g., insurance companies, Blue Cross, Blue Shield, HMOs, health and welfare trusts) should be certified at the state level on the basis of financial soundness, and plans should be routinely monitored by the same agency to guard against misrepresentation of cost or benefits. All carriers in a given regulatory jurisdiction should be subject to the same standards.

Information on quality assurance is required for meaningful competition among providers. The consumer must be in a position to appraise how various providers can benefit him and his family.

Recommendation 8: Assessment and Assurance of Quality

A. Recognizing that the quality of care given by a provider is difficult to measure, a major research effort, concentrating upon patient outcomes or upon process measures known to be associated with outcomes, should be undertaken to improve this ability.

B. Once a reliable method for measuring quality of care is available, the results should be communicated to consumers. A further research effort should concentrate on how this may most effectively be done.

C. Voluntary recertification programs can make information on provider quality available to consumers. Medical associations should promote voluntary recertification programs from which descriptions of the criteria for recertification, as well as information on on individual physician's participation in the programs, could be made available to consumers.

PRIVATE SECTOR COST CONTAINMENT INITIATIVES

The Commission discussed payment or reimbursement systems designed to stimulate cost effective delivery of health care. These plans are based primarily on private-sector initiatives. They encourage organizations of providers and third-party payers to become more innovative in developing and implementing explicit incentive structures--such as programs to identify providers whose fees are outside specified norms--for containing health care costs.

Recommendation 9: Reimbursement Levels for Providers

Local groups of physicians, hospital people, third-party payers, and other appropriate parties should work together to reach agreement on the reasonableness of levels of reimbursement for providers.

Recommendation 10: Voluntary Cost Containment Program

With participation from outside the industry and the full involvement of the medical staff, the hospital industry is urged to put in place a structured voluntary cost-constraint program, based on periodic review and public notice of all hospital expenditures exceeding a predetermined acceptable limit.

The Commission also believes that reimbursement mechanisms are useful in providing incentives for hospitals to restrain, voluntarily, additions to capacity and to deliver care cost effectively.

Recommendation 11: Reimbursement Restrictions

Third-party payers, including government, should be encouraged to conduct experiments designed to reduce expenditures for inappropriate care, to reimburse only services performed on equipment approved by placement review, and to insure that charges for ancillary services are based on appropriate standards of utilization.

Recommendation 12: Prospective Rate Setting for Hospitals

Payment to institutions on the basis of prospectively determined rates, and other payment systems which also create incentives for facilities to be more cost conscious, should be explored and implemented as their effectiveness becomes clear.

Recommendation 13: Incentives to Limit Bed Capacity

Programs should be designed to provide incentives to hospitals to limit bed capacity according to the needs of the population served by the hospitals.

Peer review is a potentially important method of identifying appropriate care patterns. To be effective, such review must consider cost-benefit implications as well as quality of care and medical necessity. The Commission believes that physicians should, and can, engage in peer review.

Recommendation 14: Incentives to Provide Appropriate Care

A. On the basis of peer review criteria and findings, the medical profession, working through specialty societies and others, should develop and disseminate guidelines for appropriate care based on criteria of medical necessity, quality, and cost benefit. These criteria should be sufficiently detailed and explicit so as to identify departures from them and allow independent consideration of the medical appropriateness of such departures.

B. The medical profession, working with third party payers, should explore ways to put providers at risk for at least part of the inappropriate care resulting from provider utilization decisions as indicated by unacceptable departures from the established guidelines relevant in a particular instance. Neither the patient nor third-party payer should bear the costs of decisions which result in inappropriate care.

Current insurance mechanisms often offer extensive coverage for high-cost, low-volume forms of care, and high-visibility, high-risk conditions, as in inpatient care and acute illnesses. They do not, however, generally cover low-cost, high-volume, low-visibility forms of care such as in outpatient care or preventive care to the same degree. Consumer preferences and provider decisions regarding what services are used, when, and how often, are conditioned by the benefit structure, and this may be contributing to inefficient and cost-increasing patterns of utilization. Studies of minimal levels of benefits and catastrophic benefits would be useful to any analysis.

Recommendation 15: Utilization in Appropriate Settings

Private and government insurance benefit packages should be adjusted to provide balanced coverage of alternative services and settings in the provision of health care. These benefit packages should also restrict reimbursement for health services provided in inappropriate settings. (Utilization review also has the potential to play an important role in this regard.) The Commission recognizes that, in the short-run, such an adjustment may exert upward pressure on the rate of growth of health care expenditures. However, the modification of the health insurance benefit structure is expected to create incentives for more efficient utilization decisions by consumers and providers, and a more efficient distribution of inpatient and outpatient facilities.

GUIDELINES FOR REGULATION

The Commission believes that the greatest hope for cost containment in the provision of health care lies in strengthening price consciousness in the health care marketplace. Before such a solution can be achieved, however, a greatly enhanced decision-making role must be provided for the consumer. Developing mechanisms to effect this change in the complex—and necessarily provider-dominated—area of health care delivery is no small task. Indeed, the Commission believes that it cannot be expected to occur in the absence of some regulation. Thus, there is a clear role for public regulation in several areas of health care delivery; indeed, many such regulations are already in place. Among the oldest and most clearly established are protecting the consumer by providing information on the qualifications of those allowed to practice medicine (state licensure), the safety of drugs (Food and Drug Administration), and the financial security of insurance institutions (state insurance commissions). Beyond these, some regulatory efforts are required to establish a delivery system that reflects professional and social concern about appropriate levels of care.

Controls on the delivery of health care are now a fact of life. As the government's role in financing health care has expanded, many of these controls have been targeted at costs. Certificate-of-Need, Professional Standards Review

Organizations, and Medicare reimbursement restrictions are among the most prominent. While the commission is aware that there are well known disadvantages to instituting regulatory measures as cost-containment vehicles, the limitations of market-oriented policies are likely to mean that realistic approaches will combine the elements of stronger market incentives with complementary regulatory controls.

In the absence of efforts to strengthen consumer and provider price consciousness, some forms of public-utility regulation, such as controls on rates and revenues, are likely to become necessary to achieve cost containment. However, to embark on a course of specific regulation of revenues could produce a health care delivery system that neither patients nor providers would find satisfactory. Some major reasons for this conclusion are: 1) To make a substantial impact on costs, the regulator would have to affect many decisions having to do with individual patient management—a difficult task in the presence of insurance or prepayment wherein incentives to want more are left in place for both provider and patient. 2) The information available to the regulator in assessing the aggregate impact of regulatory decisions would, because of the broad-range of such decisions, be meager. Conversely, to form an opinion about the appropriateness of individual treatment the regulator would have to review individual cases. Thus, the alternatives are either poorly-informed decisions or expensive review that still admits the possibility of error. 3) Patients differ in the types of therapies they want and would be willing to purchase. Medicine deals with an individual's innermost values; every regulatory decision would impact upon them. Because a centralized regulator could not possibly know these values, such as satisfaction or security, they could not be incorporated into the decision-making process.

Therefore, a careful study of public-utility regulation, as it would apply to health care delivery, should be made prior to any widespread adoption. Moreover, such regulation should not undercut strategies designed to strengthen price consciousness.

Recommendation 16: Evaluating Public Utility Regulation and Exemptions From It

A. If controls on revenues, capital acquisition, prices, etc. are expanded, attempts using carefully controlled experiments (e.g., introduction of regulation only in a few areas) should be made to evaluate the effects. In light of the problems with public-utility regulation in other industries, evaluation of regulatory options should take into account provider capture of the rate setting process and the effect of the regulation on competition between providers, including its impact on entry and innovation.

B. Regulation whose rationale is cost containment should exempt organizations or areas where innovations are being tested for the purpose of cost containment, or where strategies to increase price consciousness are being successfully pursued.

Another factor that merits further study is the cost of implementing and adhering to the various regulations affecting providers. The Commission believes that the regulatory process impacts on health care costs.

Recommendation 17: Review of Regulatory Process

The costs of regulations of all kinds, both governmental and voluntary, have significant impact on the total costs of health care. Government, as well as providers of care, must give attention to the simplification of the regulatory process and to consolidating and reducing the number of inspections, audits, surveys, reports, and other mechanisms of enforcement.

The Commission supports the concept of areawide planning and review of capital expenditures—such as the establishment of multi-hospital systems, sharing of services among hospitals, and contracting-out of certain services—and believes that efforts should be made to reduce the social costs due to duplication and underutilization of expensive capital.

Regional efforts to improve planning for the cost-effective provision of health care may require both the expansion of certificate-of-need legislation to some nonhospital settings and the decertification of some existing hospital services.

Recommendation 18: Planning

The concept of planning is supported. There should be continued monitoring of existing certificate-of-need legislation as to costs, benefits, and effectiveness; and establishment of equitable techniques for its administration. It is recognized that certificate-of-need programs have the potential for assuring that hospital additions and capital acquisitions are appropriate for community needs. Coverage should be restricted to large capital expenditures of $150,000 or more.

Recommendation 19: Certificate-Of-Need

If certificate-of-need (CON) legislation proves to be effective as a cost-containment technique for inpatient institutions, then for the sake of consistency:

Expand CON to provider settings outside the hospital, including private physician's offices, in order to provide coverage for a new facility or service that is being proposed for a noninstitutional setting, and one that substantially duplicates the facilities or services offered in the institutional setting. This certificate-of-need expansion should not include expenditures for replacement equipment.

Recommendation 20: Decertification

Programs to achieve "decertification" or conversion to other use of facilities found to be excessive to community needs should be implemented if certificate-of-need proves successful. Financial assistance for the modification of inpatient hospital facilities to other health purposes may result in less cost in the long run than continued maintenance of underused acute care facilities.

Guidelines regarding local and regional needs for health personnel and facilities would provide useful information for any health planning process. Local health planners face special difficulties in making decisions regarding complex capital equipment and its related technologies. The national guidelines recently issued for comment by the Department of Health, Education, and Welfare could have been a step in the right direction, but the guidelines were

developed without adequate involvement of professional groups. Since there is no clear assurance that these guidelines can be modified to meet local needs, such shortcomings must be remedied if future guidelines are to make a useful contribution to the planning process.

Recommendation 21: Supply Guidelines

Encourage development of guidelines other than on a national basis, to determine what health personnel and facilities are needed in various geographic areas to meet the expected demand for health services.

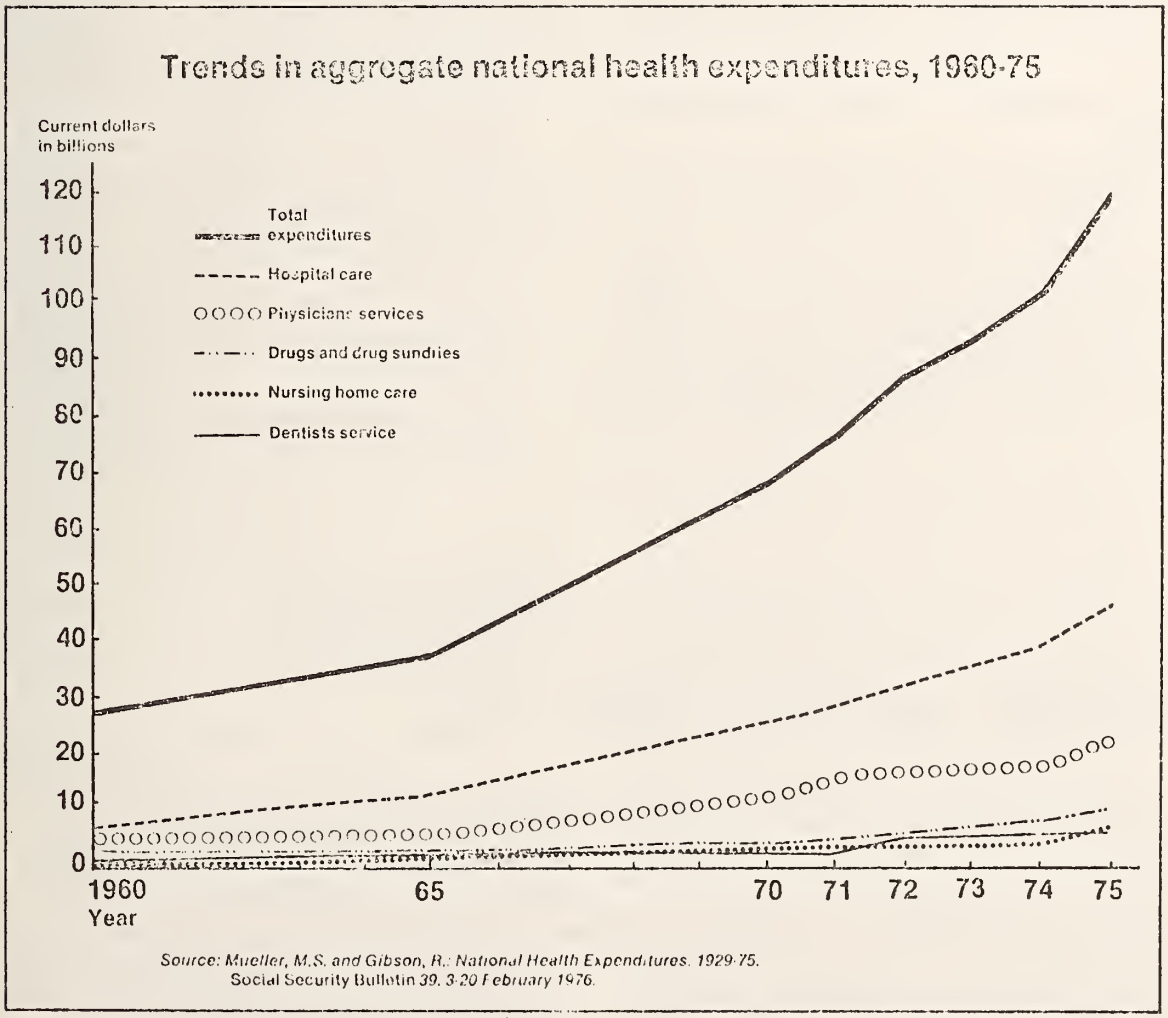
Recommendation 22: Placement Review Criteria

Develop consensus criteria for the placement of expensive facilities and capital equipment, such as computed tomography (CT) scanners and open heart surgery units, for use by state and local health planning agencies in making placement decisions of this type. The criteria should be developed at the national level with the cooperation of expert health professionals, including providers and government, and should be flexible enough to meet specific needs of individual states and localities. The criteria should take into account factors such as medical need, operating as well as capital costs, and other expected benefits and costs of the specific technology. States might be given the option of exceeding the national criteria within established limits.

The concept of regional centers to provide high technology care in a cost-effective manner was discussed as a way to consolidate services.

Recommendation 23: Regional Centers

Where cost-saving opportunities exist, regional centers should be established for high-cost specialized technologies. The number of such opportunities may be limited. Separate planning systems which would fragment and overlap with CON review should not be allowed to proliferate.



Source: Mueller, M.S. and Gibson, R.: National Health Expenditures, 1929-75. Social Security Bulletin 39, 3-20 February 1976.

Capital expenditure restrictions are another method that could be employed to control resources. Under the proposed Hospital Cost Containment Act of 1977, each year the Department of Health, Education, and Welfare would limit total national hospital capital expenditures for resource development and/or renewal. Each state would be allocated a share of the total, based largely on the state's population. Planning agencies, using the CON mechanism, would determine how their state's share would be spent.

It is argued that the advantage of this approach, in contrast to other possible financing restrictions, is that it would effectively put a lid on capital spending while maintaining flexibility in terms of specific investment choices. Furthermore, it is argued that a capital expenditure limit might strengthen CON agencies in their decision-making roles by increasing their resistance to political pressure.

The proponents of capital expenditure limits have, however, failed to develop a valid methodology or reliable process to determine the appropriate level and distribution of capital expenditures. Moreover, the practical difficulties of determining the appropriate level of the limit make it very likely that, if enacted, its impact would be arbitrary and uneven.

Recommendation 24: Capital Expenditure Limits

Capital expenditure limits, such as those proposed in the Hospital Cost Containment Act of 1977, should not be enacted.

The discussion of regulatory proposals for controlling health care costs has, so far in this report, dealt almost exclusively with the capital expenditures of hospitals. Those decisions are made by the hospital administrator and the board of trustees as well as by physicians. However, decisions about the utilization of hospital facilities are made principally by the physician in consultation with his patient. The great expansion of public and private health insurance has brought with it a variety of review programs with the twin objectives of cost containment and quality control. In many instances, physicians have opposed these programs because they intrude on the physician-patient relationship and/or abridge the physician's freedom in making medical decisions. The degree of physician cooperation with review programs will, in large part, determine their success or failure.

Practice evaluation techniques have the potential to provide insights on the relationship between structure, process, and medical outcomes. In order to evaluate this potential, routine review of existing programs is necessary. Since even unofficial guidelines can in effect become rigid standards that reduce flexibility for experimentation and innovation, guidelines should be regionally, not nationally, generated. It is thought that practice evaluation techniques can be helpful in cost-containment efforts.

Recommendation 25: Criteria and Use of Practice Evaluation Techniques

A. The reviewing boards associated with PSRO, medical audit, and the like should:

1. Develop workable local guidelines of appropriate care whenever possible;
2. Emphasize diagnostic tests and surgical procedures in retrospective medical audits;
3. Encourage increased use of prospective assessment of selected conditions prior to hospitalization; and
4. Utilize more selective methods of concurrent evaluation.

B. The appropriate boards should also see that results gathered through review techniques are more widely utilized through a mechanism that would:

1. Extend review to both institutional and office-based ambulatory care settings;
2. Develop a mechanism for channeling to providers the review information on the efficacy and cost efficiency of various treatment modalities;
3. Use review results as a medical education device; and
4. Insure linkage of review results with planning activities.

COST CONTAINMENT MEASURES WITHIN MEDICAL PRACTICE

In the past, providers have considered primarily the medical needs of their patients. The Commission believes that providers must now take steps to make cost-effective utilization recommendations without sacrificing the quality of care. There are a number of programs that can be undertaken within the health care system that are not dependent on major changes in the delivery system.

It is argued that there is often duplication of diagnostic tests for a given patient among providers. One way to reduce this practice is to establish effective quality standards for ambulatory laboratory or X-ray facilities that would enable providers to rely on previous diagnostic findings when they come to use them in a new setting. It should be remembered that some highly complex procedures must be repeated in order to assure that the patient receives the appropriate treatment.

Recommendation 26: Diagnostic Findings

Providers, working at the local level, should develop mechanisms for the sharing of diagnostic findings for a given patient in order to avoid duplication of expensive diagnostic tests and procedures.

Another area of interest is the result of recent experiments concerning second opinions prior to elective surgery. Studies have shown that the second opinions do not always recommend surgery. However, because there is no evidence to believe that second opinions are more valid than first opinions, these results do not constitute sufficient evidence to conclude that there is excess surgery. But if some surgery is indeed inappropriate, the practice of encouraging patients to obtain an additional opinion may have the potential for reducing unnecessary elective surgery with some resultant cost savings. The long-range effect of such programs has not yet been measured. Second opinion surgical study projects should continue to be conducted.

Recommendation 27: Second Opinions Prior to Surgery

Third-party payers, working with providers, should undertake conscientious evaluation of the methodologies and the results of current experimentation with coverage of second opinions prior to elective surgery. The long-term results and general adaptability of such programs should be evaluated in terms of medical care quality, cost effectiveness, the cost and quality of alternative care provided in place of surgery, and the long-range medical implications for the patients who did not have surgery.

In a broader sense, physicians are demanders of health care as they make decisions on behalf of patients. In this role, physicians may recommend care that is considered inappropriate because it is not medically necessary or consists of expensive amenities. The decision to prescribe such care can result from patient preference, the form of payment, or physician attitudes regarding current and acceptable medical practices.

Recommendation 28: Inappropriate Medical Care

The medical profession and others, working together, should examine those factors associated with medical practice that lead to utilization of inappropriate care, and assume responsibility for informing providers and consumers of their existence and impact.

There are physicians who act in an unacceptable fashion with patients and their insurers as has been amply demonstrated by the experience of the Medicaid and Medicare programs as well as the private insurance industry. Because of a lack of disciplinary power, the medical profession has been virtually powerless to apply remedies.

Recommendation 29: Disciplinary Measures for Physicians

The medical profession should strongly encourage increased efforts to develop effective means for dealing with those providers of medical services who are found to be abusing or defrauding the health care financing or delivery system.

Some medically unnecessary procedures, such as duplication of diagnostic tests or greater hospitalization are performed due to provider concern about professional liability. Such defensive measures contribute to the increase in health care costs. An authoritative body of professional opinion might indicate to providers and courts alike that good diagnosis and treatment does not always mean that more tests and procedures should be performed. Cost-benefit criteria, as well as medical-necessity and quality-criteria standards can, and should, be applied to the care and treatment delivered by all providers.

The Commission is aware of the presence of malpractice and negligence on the part of certain providers, and does not advocate that barriers be placed in the way of legitimate malpractice claims.

Recommendation 30: Defensive Medicine

A. Providers and courts should utilize guidelines of appropriate care—based on considerations of quality, medical necessity, cost effectiveness, and allowing for the varying circumstances of individual cases—for guidance as to what constitutes acceptable levels of performance on the parts of physicians and other providers.

B. The medical and legal professions, working together with third-party payers, should examine the feasibility and desirability of having the resolution of professional liability claims placed outside the traditional courtroom-jury setting.

In order for consumers and providers to utilize care cost effectively, a variety of services must be available to them. For example, consumers can be encouraged to utilize preventive-care services only if such services are readily available.

To be cost effective, early-detection screening should be made available only to those populations who are at risk. The availability of a regular source of primary care, allowing coordination and continuity of care, is also necessary if consumers are to be encouraged to become cost-effective utilizers of care.

Recommendation 31: Preventive Services

Encourage the development of policies and mechanisms that lead to continuity, coordination, and continuous availability of patient care including professional preventive care and early-detection screening services.

In the Kaiser-Permanente system, where the plan's design rules out the use of significant cost sharing, trials are being conducted using multiphasic health evaluation (MPHE) as a way of allocating resources among patients. The multiphasic health evaluation program provides a mechanism for screening all presenting patients in order to establish need for care. The accounts of the success at Kaiser-Permanente of multiphasic health evaluation and resultant educational efforts, in terms of the potential for reducing patient anxiety and more efficiently utilizing physician time, have been noted.

Recommendation 32: Multiphasic Health Evaluations

Carefully controlled experiments should continue to be conducted to determine the cost effectiveness of multiphasic testing programs in diverse environments.

SUPPLY AND DISTRIBUTION OF HEALTH CARE PROVIDERS

The Commission discussed the effect of the current rate of growth of the supply of physicians and the implications of their geographic and specialty distribution on health care costs. Research shows that physicians have tended to locate disproportionately in the large urban centers of this country and not necessarily where the need for their services is most acute.

One solution often offered to the problem of access and rising health care costs is to increase the supply of physicians. Resulting competition, it is argued, could temper increased physician fees and cause some physicians to move to a less crowded specialty or to an underserved area. The Commission, however, is unconvinced that either would occur given present institutions. Furthermore, there are arguments that increases in the supply of providers may lead to concomitant increases in demand. The Commission believes that the current rate of production of physicians is adequate to meet expected demand.

Recommendation 33: Physician Supply

There should be no new efforts to increase the number of medical school graduates until such time as necessity for change is clearly evident.

It is essential to reduce the geographic disparity in the availability of physicians' services. There are a variety of programs, either currently in effect or in the planning stage, designed to encourage physicians to establish practice in certain geographic areas. Public policy in this area should be designed with a clear understanding of the factors which influence physician location choices. In addition, programs should be directed at different targets, such as the medical student, the medical school, graduate programs, or the practicing physician. Some examples include: 1) reducing fee differentials that exist between well-served and underserved areas; 2) developing group practice opportunities in communities large enough to support such practices; 3) assisting in the financing of appropriate health and medical equipment and facilities in medically underserved communities; 4) developing additional continuing medical education workshops, and other support services for physicians practicing in shortage areas; and 5) continuing the development and expansion of area health education centers that have the potential to provide a considerable part of the clinical training and continuing medical education of primary care physicians, dentists, and other health personnel.

Recommendation 34: Professional Attractiveness

More effort must be devoted to improving the professional attractiveness of service in shortage areas. The development of preceptorship and other rural and inner-city training programs would be instrumental in acquainting physicians with medical practice in shortage areas. However, the potential impact of any programs would be limited without an effort to provide an environment and resources that would increase the number of physicians who remain in an underserved community after such training.

Recommendation 35: Loan Forgiveness and Scholarships

There should be less reliance on current loan forgiveness and scholarship programs as a means to affect physician location decisions. For such a policy to be effective, recipients of government loans and scholarships who default on their service commitment must be required to pay back a substantial portion of the cost of a medical education, rather than just the cost of tuition.

Recommendation 36: Recruitment from Underserved Areas

If state loan forgiveness programs are established, they should be coupled with admission programs which actively recruit students from rural and other underserved areas. The financial lever alone is insufficient to have a permanent influence on physician distribution. However, the joint effect of admissions and loan policies hold more promise of being successful since students who were raised in a rural environment are most likely to return there to practice.

The specialty choices of physicians play an important role in any redistribution program. Increased specialization in non-primary specialties has the effect of discouraging physicians from locating in those underserved places that are likely to be some distance from centers of learning and related support facilities. It has been shown that family practitioners tend to respond differently than other physicians to various location forces. Therefore, a significant increase in the proportion of family practice physicians might lead to a more equal geographic distribution of physicians. An increase in family practitioners could be expected to result in lower unit costs of medical care and a more appropriate balance between primary and secondary-tertiary care.

Recommendation 37: Family Practice

There should be an increase in the proportion of family practice physicians. Such an increase could

be expected to contribute to the moderation of rising health care costs in two ways:

A. Through the substitution of physicians trained to the delivery of primary care for more specialized physicians who are likely to provide more expensive primary medical services, and
B. Through lower training costs for a given supply of physician manpower or, conversely, a larger supply for the same level of costs.

In order to achieve this objective:
A. Federal and state support for the establishment of departments of family medicine, particularly for the recruitment of faculty, should increase in order to increase the proportion of practitioners in family practice, and
B. Federal capitation grants contingent upon meeting primary care residency percentage requirements should continue. However, it is recommended that voluntary efforts be made to develop and expand both undergraduate and graduate programs to educate primary care physicians in numbers that will exceed such requirements.

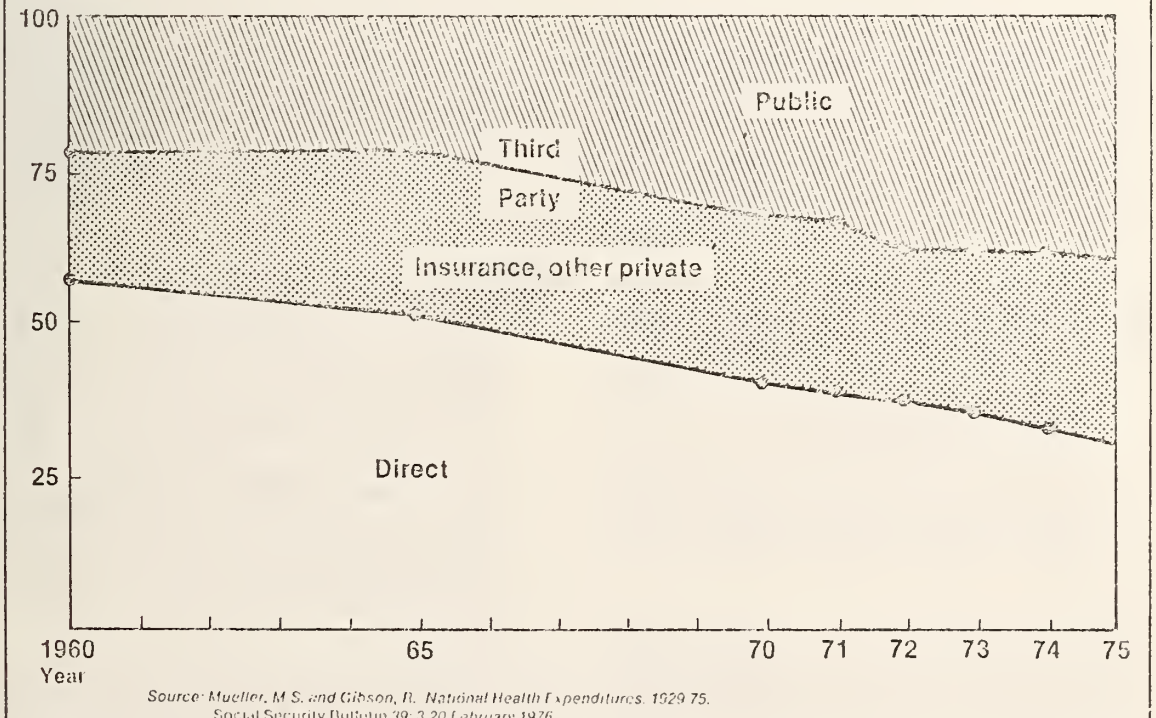
The physician is the principal decision maker in the treatment of a patient's medical condition. This role is of critical importance with respect to the cost of health care. In order to foster an acceptance of cost effective clinical decision making among physicians, the Commission believes that certain changes in the nature of the physician's education and training are required.

Recommendation 38: Curricula on Economics of Health Care

A. Medical, dental, and osteopathic schools should develop curricula designed to expose students to the economics of the care they deliver, the nature of resource scarcity, and a variety of health care settings.
B. With the sponsorship of appropriate professional societies, and with the use of a good textbook, the economics of care should be incorporated in courses as a part of professional training. The material should be mandatory and subject to examination.

The hospital setting provides an ongoing opportunity to reinforce the physician's price consciousness. The forms on which the physician orders services for his patients can be used to focus his attention on the costs of treatment alternatives.

Trends in public and private (government, insurance, and direct payments) personal health care expenditures, 1930-75



Source: Mueller, M S. and Gibson, R. National Health Expenditures, 1929-75. Social Security Bulletin 39: 3-20 February 1976.

Recommendation 39: Price Consciousness in the Hospital Setting

Physicians should be encouraged to enter or acknowledge the cost or charge for hospital-based services.

The Commission also discussed modifications in the organization of the health care delivery system as it affects the physician's practice. Physicians have always employed and, in varying degrees, delegated patient care services to allied health personnel. However, new and expanding roles for health workers have been established within the last decade. Formal education and training programs for allied health professionals have been developed on the basis that nonphysician personnel can assume a larger role in the delivery of preventive, acute, and restorative patient care. Thereby, physicians would be freed to care for more seriously ill patients.

There is widespread opinion within the medical profession that physicians could delegate, without harm to their patients, a number of the tasks they frequently perform. However, some physicians tend to hire fewer support personnel, such as nurse practitioners, physician assistants, and clinical psychologists, than is technically and economically feasible. The Commission believes that means to facilitate the delegation of additional responsibilities to allied health personnel should be implemented.

Recommendation 40: Modify Restrictions on Allied Health Personnel

Legislative restrictions should be modified regarding the use of allied health professionals under the supervision and direction of a licensed physician who is responsible for the performance of that assistant. There is a wide discrepancy between the number of tasks physicians believe could be delegated to support personnel and the number of tasks physicians actually would delegate. The real or perceived barriers of state medical practice acts contribute to this discrepancy and should be modified.

Recommendation 41: Reimbursement for Allied Health Personnel

Reimbursement systems should pay physicians or their institutions directly for the services of allied health personnel. These professionals should be under the supervision of practicing physicians.

RESEARCH GUIDELINES

In recent years, technological innovations have attracted increased attention as a cause of rising health care costs. While new technologies are generated by research and development, it is the willingness of the health care delivery system to finance their use that primarily determines their impact on total health care costs. Accordingly, many of the efforts toward cost consciousness proposed in this report involve the impact of technological innovations. In addition, the timely dissemination of accurate research information can contribute to more appropriate use of health care technologies, thereby lowering the cost of health care and improving quality.

Recommendation 42: Technology Assessment and Information Dissemination

A. There should be a substantial expansion of efforts to assess health care technologies and to collect and disseminate the resulting information.

B. A national center should be established to serve as a central depository and clearinghouse for information on health care technologies. The center would be an important source of information for physicians, patients, and all others concerned with medical technologies, including governmental and other third-party payers.

Limitations of current evaluation techniques, limited information about the major chronic diseases, and ethical constraints regarding human experimentation make technology assessment a difficult, tentative process. These problems imply that there are substantial risks associated with attempting to link technology assessment to controls on the acquisition and utilization of these technologies. Technology assessment, costly in itself, could lengthen the time between discovery and diffusion of a technological advance. This would reduce patients' access to unproven, but possibly efficacious treatment modalities. If technology assessment interferes with the incentive to conduct research and development, it could, in the long run, reduce the number of technological advances. It is important that technology assessment not inhibit major beneficial and cost-saving advances.

Recommendation 43: Limit Restrictions on Diffusion of New Technologies

A. Existing restrictions on the diffusion of new drugs and devices, including the Food and Drug Administration's market clearance tests, should not be expanded. Safety assessments should be carried out promptly, and new drugs and devices should not be withheld from the public while lengthy efficacy tests and cost effectiveness investigations are conducted.

B. The government has the responsibility for assessing the safety of new technology, and disseminating the findings. While there should be no expansion of the statutes making the diffusion of technology contingent on technological assessment, the government and private carriers may, quite legitimately, decide to deny reimbursement for technologies classified as experimental.

In the long run, progress depends on the research and development of new health care technologies. Better scientific understanding of the underlying disease mech-

anisms is needed in curing or coping with such problems as heart disease, cancer, stroke, schizophrenia, arthritis, and diabetes.

Recommendation 44: Basic Research

There should be increased funding for research toward basic scientific understanding of disease mechanisms.

While basic research is conducted, both biomedical and health services research can contribute toward identifying and coping with technology-related cost problems.

Recommendation 45: Research Toward Cost-Saving Innovations

Public and private organizations should direct more research toward solving technology-related cost problems. For example, more research might be directed toward diseases which are especially expensive to treat with current technologies. Or more research might be done in designing methods to utilize potentially cost-saving technologies.

CONSUMER AND PATIENT EDUCATION

Educational programs are important in providing knowledge and assistance to consumers and patients if they are to make cost-effective utilization decisions. Such educational endeavors thus become an integral part of any plan to contain health care costs.

Recommendation 46: Health and Patient Education

Consumers and patients should be encouraged and assisted to become more active and knowledgeable participants in making health care utilization decisions by:

A. Developing health and patient education programs that inform consumers and patients about the costs and benefits associated with potential and alternative courses of treatment, and

B. Emphasizing self-help education programs directed at well and worried-well individuals and groups to provide consumers with the information necessary to make the initial decision as to whether or not provider care is necessary, or whether there are other alternatives open to them such as self-care, bed rest, or use of nonprescription drugs or first aid.

One of the major problems inherent in the desire to educate consumers and patients is developing and initiating effective education programs. Due to the cost and difficulty of implementing such programs, they are not usually assigned a high priority by community organizations, hospitals, or professional providers. The Commission believes in the importance of such programs, and encourages their development and implementation.

Recommendation 47: Private Sector Involvement in Education

Voluntary health agencies and other private sector organizations should be encouraged to experiment with various types of health and patient education programs, develop evaluation mechanisms to assess education efforts against specific and realistic success criteria, and implement programs designed to encourage employee groups and large employer firms to act as vehicles for these health education programs. A national clearinghouse to make information and prepackaged program materials available to groups seeking assistance in setting up health and patient education programs should be developed.

Cost containment in health care may also be accomplished through the reduction of need for service by: 1) the prevention and reduction of the incidence of illness through the development of more healthful lifestyles; and 2) the early detection of incipient conditions permitting treatment through lower cost therapy. Health education programs, in addition to other courses of action, can provide a variety of informational techniques, one or more of which may act to motivate a consumer to achieve the dual goal of healthful lifestyle and reduced cost.

Recommendation 48: Healthful Lifestyles

Consumers should be encouraged and assisted to learn healthful practices by:

A. Educating and motivating the consumers to adopt more healthful lifestyles.

B. Exploring methods of utilizing public communication more effectively in health education efforts directed towards motivating consumers to adopt healthful lifestyles.

C. Encouraging consumers, in appropriate risk groups, to utilize professional preventive health care services which would permit the early detection and treatment, or the prevention, of illness.

Note: This Commission's recommendations were put in final form less than one week before this printing. The text of this report may vary slightly from the version published in the full Commission Report.

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MODULE I WORKSHOP PAPERS

Panel Members

- Thomas M. Russo, Acting Director (Workshop Leader)
  Division of Medical Assistance and Health Services
  New Jersey State Department of Human Services

- Harvey J. Shwed, M.D., Chairman
  Medicaid Committee
  New Jersey Medical Society

- James E. Cunningham, President
  New Jersey Association of Health Care Facilities

- Wilfred I. Myers, Associate General Manager
  Government Health Programs
  The Prudential Insurance Company of America

Preparation of Workshop Report

Written by Thomas M. Russo and reviewed by panel members

Overall Objective

The overall objective of the conference was to provide for a better working partnership between State and Federal officials and the health care providers under the Title XIX Medicaid program. This was to be accomplished by developing a model action plan which could be used to improve the relationship between each of the different parties in the Medicaid partnership.

Specific Objective

The specific objective of Workshop A under Module 1, was to review in detail the New Jersey Medicaid program's approach to establishing and maintaining a working partnership with the health care providers in the State. This objective was achieved

by utilizing a two part procedure with a "standing room only" attendance at each of the two workshop sessions.

First Session

At the first workshop session from 9:10 A.M. - 11:30 A.M. on Tuesday, December 13, 1977, each panel member devoted approximately 30 minutes to presenting and discussing the role played by his organization and/or provider group in the Medicaid partnership: Mr. Russo, following opening remarks on the purpose of the workshop, from the overall viewpoint of the single State agency; Dr. Shwed, from both the individual standpoint of a practicing psychiatrist and the broad overview of a member of the physician and professional practitioner community; Mr. Cunningham, from the perspective of a well organized trade association representing the interests of long term care facilities; and Mr. Myers, from the outlook of a Medicaid program contractor responsible for utilization review and claims processing for individual and group practitioners, hospitals, home health agencies and ambulatory care services.

Second Session

At the second workshop session from 3:30 P.M. to 6:00 P.M. on Wednesday, December 14, 1977, the workshop was open for a full floor and panel discussion and debate following opening remarks by Mr. Russo on the objective of the workshop in preparing a

model action plan based on information gained in other conference sessions, on comments and criticisms made at the first workshop session, and on the personal experience and knowledge of both the panel members and workshop attendees. A summarization of the discussion and recommendation for a model action plan represents the remainder of the report. Participants included representatives from the ten largest Medicaid States in volume, plus such organizations as the American Medical Association, American Academy of Pediatrics, New York Hospital Association, Ohio Hospital Association, Michigan Medical Society, American Dental Association, et al.

Workshop Debate and Recommendations

At the onset, the workshop posed the basic question as to whether or not a good relationship or working partnership was actually wanted or desired by the various participants required in the administration, operation and implementation of the Title XIX Medicaid program - the Federal government, the State government, the providers of service, and the contractors for service systems. In other words, could or did the program work well in some States or territories with a unilateral or autocratic approach by the parties involved? Were the involvements and elements necessary in a true relationship or partnership really needed or wanted? Where did the Medicaid eligible person, the recipient for whose benefit the entire program was developed, fit into the system? What about the status of national groups and associations?

Are they not an interested party in the relationship as representatives and spokesman for large and significant blocks of providers of service?

The consensus of workshop opinion was that a good and formalized relationship was desirable and represented a goal to be achieved in the Medicaid program, subject to the following limitations and conditions:

1. That a real partnership is impossible and cannot exist because in a true partnership the parties are equal in reference to the issues of power and authority with equal veto and approval rights. In this respect, government jurisdictions, with the Federal control at the pinnacle, represent the ultimate power authority over providers of service and recipients of benefits. Even though providers of services have the ultimate weapon of non-participation or the mass boycott of services, such an approach is not likely to be utilized because of the pressures of public opinion and strong reactionary forces. Therefore, the power of providers of services is at best moot on any large scale. The recipient of benefits exerts the least influence in the relationship, and most often none at all, as the receiver of services from the government structure,

whereas the Medicaid eligible recipient probably should be in the forefront of the relationship. Therefore, at best there can only be a limited partnership or a restricted relationship. However, as a reinforcement to the reality, it must be recognized that an adversary relationship may emerge or surface among the various participants in the relationship. Specific goals and objectives, philosophies, considerations of public policy and monies vs. the free enterprise system, desires to maximize profits, degree of government control, protection of the public interests, etc., all play significant roles in modifying the relationship at a given time in reference to other direct and indirect economic and social forces. However, regardless of those diverse interests, there is a mandate to Medicaid to develop the relationship to the maximum extent possible in order to strengthen the delivery of medical care and health services to the poor and needy persons in the country.

2. That there must be, as an absolute, a commitment on the part of all participants in the relationship to make it function properly. Half-hearted support, lip service, support only when it is advantageous to one's position or philosophy, or any other limitation is not sufficient.

The commitment must be real on the part of the Federal government, State government, provider community, contractors and recipients. One or more of the parts cannot be absent in the relationship - all are required. The relationship cannot exist only between the single State agency and the providers of service because the Medicaid program, of necessity, is a multi-phasic system which does not operate in an isolated environment. Because of its impact, the Federal government cannot step out of the picture, for example, and tell the States to develop a "Medicaid partnership." The Federal element is an integral part of the system, and without that element there can be no real "partnership", in whatever limited or restricted form it takes. The participation of all elements is necessary in the give and take of a real working relationship. The Federal government has a mandate to be an active participant in the relationship.

3. That the single State agency take the invitation with various elements of the provider community to foster a relationship that will engender mutual respect and cooperation for achieving to the maximum extent possible the goals for which the Medicaid program was adopted. Such activity should include:

A. Meeting regularly, formally and informally, and whenever needed with representatives of provider groups to review and consider problems and issues of mutual interest and concern. Separate meetings should be held with individual disciplines or associations for this purpose, such as the State Hospital Association, State Medical Society, State Dental Association, etc. The meetings should be structured with an agenda for effectiveness and should always be attended by officials who have the authority to make decisions and to determine policy and procedures, such as the State Medicaid Director and the Executive Director of the Professional Association. Either party should have the right to place items on the agenda for review and to indicate priorities. Official minutes should be kept of the meetings. When the subject matter is complex and/or technical and further study is required, sub, special or ad hoc committees should be appointed as working groups. Any party should have the right to call for a meeting of the committee with the State Medicaid agency serving as the coordinator. The committee should be a working one, dedicated, honest and above board in

its deliberations, while recognizing the limitations of the other party. For example, provider groups must realize the procedures required by a State Medicaid agency to obtain program funds, the route through the Executive and Legislative branches of government, and the State agency must correspondingly realize the pressures on the provider groups or associations by its membership for realistic reimbursement rates. As a minimum, there should be an agreement to thoroughly discuss all issues prior to any proposal for adoption and promulgation of a new or revised Medicaid regulation, providing all parties the opportunity to develop and make known their reasons for support or non-support of the proposal. An honest attempt must be made to recognize and consider legitimate viewpoints and opinions, to develop findings of fact, and to reconcile through compromise, whenever possible, in order to reach agreement and support prior to adoption and implementation of a Medicaid rule or regulation. As may be needed from time to time, the active participation and attendance of Federal officials, such as the Regional Director of the Medicaid Bureau, should be obtained.

B. Consulting with an advising provider in advance of proposed or revised rules, regulations, procedures, or reimbursement rates and sharing with providers the reason and background for such proposals. This procedure is advantageous to both the State and the provider in that it permits dialogue and discussion before a change is made, thus ensuring the maximum support possible before adoption and not opposition after adoption. Although such a procedure may be time consuming, it should be advantageous if goals are realistic and attainable.

C. Convening a special task force on really important items with legislative representation on the task force. This procedure, however, should be reserved for high priority needs with significant support. It should not be utilized for routine matters.

4. That there be a commitment by provider groups and associations to publicize and make known to its membership to the fullest extent possible, and on a timely basis, the deliberations and conclusions reached at committee meetings, along with a request for full membership support of the conclusions. Too often, Executive Directors of professional associations and officers agree to a course

of action, but the information is not disseminated to association members, or, if disseminated, it is neither adequately explained nor done on a timely basis. Moreover, there frequently is no real attempt to solicit full membership support and cooperation for the course of action agreed upon.

5. That there is a commitment on the part of the State to speak with a single, united voice when an agreement is reached. Frequently, when more than one State agency is involved, one either contradicts the other or does not give its full support, thereby mitigating the effectiveness of an agreement and placing in jeopardy the integrity of the State with the provider community. This not only occurs between agencies in the Executive Branch of government, but also between the Executive and Legislative branches of government. Admittedly, however, the latter situation is difficult to predict or control.

6. That government at both Federal and State levels make every effort to simplify in common sense terminology the policies, procedures, systems, publications and instructions for providers of service. One of the greatest impediments to good relationships is the amount of paperwork, "red tape" and the maze of regulations emanating

from government or regulatory sources. These, coupled with the lack of uniformity between such programs as Medicare and Medicaid, frustrate the providers of service and hinder Medicaid program participation. These complaints have a direct bearing on claims preparation and claims processing error rates, thus resulting in a slower or delayed reimbursment mechanism. All tend to alienate the provider community and positive relationships. Increased interface is necessary between the Medicare and Medicaid programs, as one example, for improving this situation.

7. That the role of the recipients of Medicaid benefits be considered at times and in special circumstances in the relationship, but that their input not be solicited or obtained on a routine, ongoing basis in deliberations with provider groups because of the absence of any authoritative, knowledgeable and organized group that could represent or speak on behalf of a majority of recipients.

8. That the role of national provider associations be limited in the relationship to that of an educational and advisory function only and that such associations not be active participants at the State level of

provider relationships. At the State level, the State associations and representatives should be the participating groups, so as to be representative of local practices.

9. That State Medicaid programs, including contractors which perform Medicaid functions in whole or in part, utilize to a greater extent a one-to-one relationship with providers of service. This type of interface was felt to be superior and more informative than the faceless, impartial, cold and undiplomatic forms used by many State Medicaid programs, including the Federal government in the Medicaid program. Also, it was felt that greater use of trouble shooting field representatives and toll free hotlines, manned by personable and knowledgeable people, would go a long way toward fostering better Medicaid provider relationships. Related to this was the feeling that more information and better education needed to be given to both the provider of services and the recipient of benefits by the Medicaid program. Frequently, neither the provider nor the recipient are adequately educated to their informed participation. Considerable improvement is required in this area.

10. That the "witch hunt" atmosphere sometimes created by Federal and State governments in the Medicare and Medicaid program integrity efforts, publicly tainted individual, groups and institutional providers to the extent that the entire profession was branded by association. Within such a repressive atmosphere, it was felt by many providers that a good relationship based upon mutual respect and trust was almost impossible. Government, it was argued, must treat fraud and abuse cases and high dollar volume providers with greater accuracy in the public press and in such a manner so that all providers are not guilty by association with a profession or industry. Also, there was an expressed fear of being tried in the public press for alleged wrongdoings or failure to meet proper requirements which did not affect quality patient care. The endorsement of these practices will continue to hamper the development of strong Medicaid provider relationships.

11. That reimbursement levels must be reasonable and adequate with ample incentives to foster good relationships and a high percentage of provider participation in the Medicaid program. This, coupled with a simplified and speedy claims processing system, was considered an absolute essential for a positive program. With

respect to reimbursement, it was expressed that providers should be honestly and candidly informed of State fiscal affairs and the level of reimbursement that budget appropriations could support. It was further expressed that providers should, where warranted, independently and actively solicit the support of their legislative representatives and should lobby for fee increases in support of, and as a supplement to, State Medicaid program efforts. The various pressures on State government fiscal needs and State legislators were recognized with respect to the Medicaid share of available appropriations.

12. That the "fair hearing" process for providers must be expeditiously scheduled and equitably administered under the Medicaid program. Although recipient fair hearings have a Federally mandated 90 day time limit for processing, there does not exist any similar requirement for provider fair hearings. Accordingly, there is a tendency to place a lower priority on provider hearing requests. This situation is further aggravated by heavy caseloads without a sufficient number of hearing officers. It is essential for a salutary provider relationship that the "fair hearing" process not be excessively cumbersome or time-consuming and that geographical locations be considered for hearing sites so as to preclude long distance

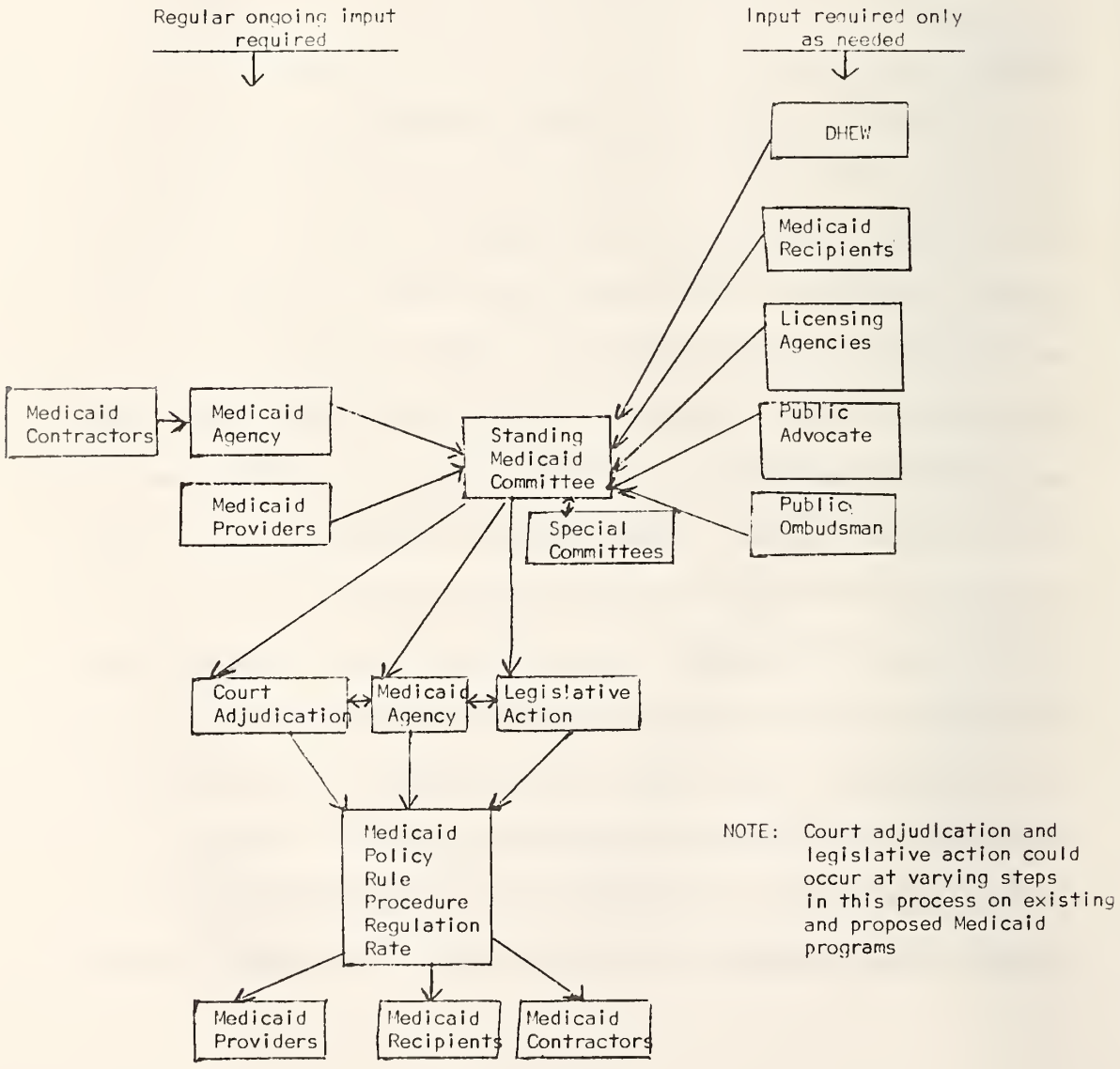
travel and large expenses by providers. Further, the hearings should be heard on a timely basis. Although these are laudible objectives to be achieved, it is realized that administrative "fair hearings" are semi-judicial proceedings and that by their very nature must adhere to established routines. However, the provider must feel that he/she is getting a "fair shake" and that provider concerns are impartially considered.

Summary

The workshop panel and attendees recognized the fact that every State and territorial Medicaid program has relationships and dialogues of some type with providers of service. None have perfect programs, but some, such as New Jersey, are considerably more advanced and sophisticated than others. Medicaid programs and providers must, of necessity, interact with each other. Some maintain that provider input delays action and is an impediment to program administration. Although time-consuming and frustrating at times, provider input in policy formulation is essential because of mutual interests. Input can make a difference and does make sense. It helps everyone, the Medicaid program, the provider and the patient. There is not always agreement and sometimes one must resort to the courts to resolve differences. However, as a result there is input. The Medicaid program should not adopt a policy or make a significant program change without such provider

participation. Only then can trust and confidence be achieved with a common insight into the process and problems of Medicaid as a government sponsored medical and health care program. The following diagram represents a blueprint to achieve this relationship.

Diagram Of Relationship



Thomas Gaylord, Chief
S/UR Unit
Minnesota Medical Assistance Program

SUR Plan - Minnesota

The Surveillance and Utilization Review Division, or SUR, is the post payment review arm of the Medicaid program in Minnesota. Both provider and recipient misutilization is identified, analyzed, and investigated by the division. Corrective action in the form of administrative action, recipient restriction, dollar recovery, or civil or criminal prosecution may be accomplished. Cases are identified from the Medicaid Management Information System's computerized exception reporting system, patient and provider profiles, and other sources.

Post payment review activity is never welcomed by a provider community. Whether the terminology used is review, audit, or investigation, a visit to a provider's office by personnel from the SUR Division ranks in popularity with a bad toothache or a tax audit by the Internal Revenue Service. Recognizing this fact, the Minnesota SUR Division attempts to make these provider visits as palatable as possible by sending out auditors and investigators who are qualified to examine and verify medical and business records. Professional investigators are always teamed with at least one health professional when on site visits are made. In

all but the most exceptional cases, appointments are made in advance with providers, and SUR personnel enter their stores, offices, or facilities at mutually agreeable times. A list of Medicaid recipients' names is produced upon arrival, records are verified, and a 20 minute interview with the provider completes the audit.

It became apparent early in our division's history that the more rapidly the leadership and membership of the professional groups became aware of our purpose, capabilities and method of operation, the more efficiently we could complete our tasks. Programs on SUR were presented to the Welfare Task Force of the Minnesota State Pharmaceutical Association and the Medical Service Committee of the Minnesota State Medical Association. These presentations were very well received and both professions expressed a willingness to assist us in our efforts and an interest in our capabilities. We later were asked to present our story to the Board of Directors of the Pharmacy Association and eventually to present a workshop to the annual State convention. We also have given presentations to graduate student groups at the University of Minnesota schools of health sciences.

Our communications effort in the SUR area with the professional groups has had a definite deterrent effect in the misuse of the Medicaid program by providers. Not only has it enabled

our program to demonstrate its capabilities, it also has taken the mystery out of the Medicaid field audit. We have found that since our presentations began, more and more providers have accepted our routine visits with an open mind as opposed to greeting us with attorneys or hostility.

The SUR Division has also had representation on the working committee developed with the Medical Association by the Invoice Processing Division which Mr. Stoneking previously described. A long term care committee was recently developed to parallel the activities of the Medical Association committee. Representatives of the Medicaid program, medical association, hospital association, nursing home association, and associations of homes for the mentally retarded, meet monthly to preview provider bulletins, discuss new regulations, and work out mutual problems. We are attempting to inform these provider groups about program changes before they actually occur. The constraints the Medicaid program is operating under are explained and problems are solved in a mutually agreeable manner. Provider groups are given a chance to disseminate program change information to their members through their own newsletters and journals well in advance of the issuance of a provider bulletin. This approach by the program has been welcomed by the involved associations and the committee is currently working on a model long term care package for submission to HEW.

With the production of patient and provider profiles becoming a requirement in Federal regulations, more and more States have implemented or are planning to implement Medicaid Management Information Systems or similar data systems. Although these systems frequently are installed to detect fraud and abuse, the data generated can be utilized in other ways. One of these uses is to assure that the Medicaid recipient is being provided appropriate services to improve his medical condition. Minnesota currently is planning to implement a program using patient and provider profiles to evaluate and improve medical care services. This program will establish a series of regional committees of physicians and pharmacists to review unusual profiles identified through the SUR subsystem exception reports. Practitioners will review actual Medicaid patient profiles with provider and recipient identification deleted. Identified patterns of misutilization will be brought to the actual provider's attention through an educational component of the program. Finally continuing education programs for both physicians and pharmacists will be developed giving credit toward license renewal for profile reviewing activity.

The Minnesota program is well aware of the problems which exist with overutilization of services by recipients. Drug abuse, doctor shopping, missed appointments and frequent emergency room

visits are but a few of the problem areas. We have developed a recipient restriction or lock in program to identify the abusers of the system and to attempt to correct their utilization patterns. Exceptional recipients are analyzed by the State agency and evaluated by a multidisciplinary committee of a physician, dentist, clinical pharmacists, and social workers. If restriction is recommended, the recipient selects one physician and one pharmacy for his health care. Periodically his utilization patterns are discussed with him by his social worker in his county and he remains locked in for a twelve month period. In addition to Medicaid professional staff, the restriction review committee utilizes a physician and clinical pharmacist from the Medical Assistance Division's medical advisory committee.

It appears that profile data can be useful to the professions not only for continuing education, but also for improving quality of care, identifying competence, and decreasing malpractice vulnerability. The Minnesota Surveillance and Utilization Review Division is attempting to make the State Medicaid agency not only a payer of bills and gatherer of information, but also a source of useful Statewide statistical information on health care and utilization patterns for the health professions.

Brad Stoneking, Chief
Invoice Processing
Minnesota Medical Assistance Program

Minnesota is an MMIS State, certified in July, 1975. Minnesota operates its own Medicaid system, with no intermediaries. You have heard from the panel some of the history in going from a county payment system to a State centralized system, and the interaction on a policy level, both prior to and in the present.

You heard speakers yesterday talk about barriers to good provider/State communication (i.e., reimbursement and timely payment.)

Minnesota's early philosophy was to prove to providers that the State could operate an effective mechanical payment system. To do this, Minnesota went one step further in communication.

In addition to policy advisory groups, through the Invoice Processing Division and its Provider Education Staff, we contacted and established liaison with the billing staffs of the medical providers. For example:

A. Regular meetings were established with a sub-group of the Minnesota Hospital Financial Managers, and the Minnesota Medical Accounts Managers, who were the business and patient account managers in the hospital.

Results: 1. A Remittance Advice which served both the State and the provider information needs.

2. Prompt processing of claims; 42 day reject if claim unresolved.

B. A monthly Ad Hoc Committee of third party payers - named the "Health Care Payor/Provider Advisory Committee of Minnesota," the make-up of which includes:

DPW
Clinical Managers Association
Minnesota Medical Association
Travelers
Blue Cross
Commercial Insurance
Hospital Association

Sub-Committees are actively involved in:

1. AT-35-77, the lab billing transmittal
2. CPT-4 procedural coding - With the recall of the Minnesota Relative Value Index (MRVI) there was created a void in procedural reporting. All participants of this Ad Hoc Committee have agreed to implementation of CPT-4. It is currently under review and study by these members with suggestions being forwarded to AMA to

update CPT-4. It will be implemented in Minnesota on one set date agreed upon by all participants - not piecemeal. Additionally, as an outgrowth of this group, Blue Cross/Blue Shield of Minnesota and DPW combined to share the costs of reprinting CPT-3 and distributing a free copy to providers. This group meets monthly on a rotating basis at the different member shops, and is comprised of technicians and provider relation people.

C. A UB-16 Committee comprised of:

Minnesota Hospital Association

Medicare

DPW

Insurance

People with operating knowledge from these member groups have researched and studied UB-16. It appears Minnesota will have a uniform hospital claim form. However, it may not be UB-16, but a Minnesota product.

This technical/provider relationship and education approach coupled with the Association/Policy Advisory Group has created in Minnesota a climate of responsiveness, openness, trust and a willing channel of communication. It has created a Medicaid

program which pays 89% of its claims within 0 to 20 days of receipt and 95% of its claims within 0 to 30 days of receipt, while dealing with figures like 5 to 6 million claims per year, 220,000 recipients and $350 million dollars in payment.

It is a system where the provider and the Medicaid agency can be heard: a combination of policy and technical liaison. The biggest plus is that we can meet and understand each other's problems, constraints and methodology.

Why did it work in Minnesota? People on both sides were willing to take a risk and try something new to break with the age-old theory that medical providers and payers always have to be against one another. This is a communication agreement, a mutual respect which is different from a partnership at the policy level and at the operating level.

Richard P. Bigelow, M.D.
Medical Director
Utah PSRO Ambulatory Care Project

Profiling And The Provider: The Utah Physician Ambulatory Care Evaluation Program

The PACE Program, as we use the term in Utah, stands for Physician Ambulatory Care Evaluation. Many of you have already heard about the program in earlier presentations, but I will summarize for those of you who haven't.

PACE is a unique effort in ambulatory care profiling and review. It was developed by the Utah Professional Review Organization, called UPRO, with credit for the data support system going to Optimum Systems Incorporated. The program is perhaps particularly interesting because its operation represents a successful ongoing cooperative effort between a physician review organization and a State Medicaid agency. PACE is a major utilization and quality assurance review mechanism of the Utah Medicaid program, and the data support system operates as a module of Medicaid Management Information Service (MMIS).

Several philosophical points were agreed upon in the very early considerations of the program which remain fundamental principles: (see Figure 1)

1. We wanted to avoid intrusion or extra burden on a

FIGURE 1

PRINCIPLES BEHIND PACE

1. USE EXISTING DATA SOURCES
2. SCREEN SYSTEMATICALLY AGAINST EXPLICIT GUIDELINES
3. FOCUS ON PATTERNS OF CARE
4. SCREEN AND REVIEW IN THE CONTEXT OF CARE TO PATIENT
5. EMPHASIZE EVALUATION OF MEDICAL APPROPRIATENESS RATHER THAN UTILIZATION CONTROL PER SE.
6. UTILIZE PEER JUDGMENT
7. COMMUNICATE RESULTS CONSTRUCTIVELY

physician's office practice and therefore opted to use existing data sources, namely claims data, even though we recognized their limitations (such as the fact that clinical findings are not reflected except indirectly through the diagnoses recorded and the fact that diagnoses identified are often imprecise.) The program was not originally conceived as Medicaid-related and clearly has many potential applications outside of Medicaid. However, Medicaid claims data describe patient care more comprehensively than most claims data bases because of the inclusiveness of the benefits package and especially the inclusion of prescription drugs. Consequently, a data exchange arrangement was worked out which has led to ever more extensive interactions between UPRO and the Utah Medicaid Agency.

2. It was also felt important that matters selected for physician review be selected without bias using explicit criteria as much as possible. Much time in the experimental phase of PACE developmentt was spent devising a methodology for computerized screening of quality of care against such criteria. The experiment, in our minds, proved to be successful.

3. Review focuses not on individual instances of exceptional care, but rather on patterns of a provider's practice evident from his contribution to the care received by individual patients. This emphasis has been shown to overcome the most difficult limitations of claims data for review.

4. The approach emphasizes the evaluation of medical appropriateness, not simply the control of utilization.

5. The review, of course, is based on the judgment of peers -- practicing physicians with similar kinds of office practices.

6. An intervention, where indicated, takes an educational form. This is a key principle and has, I feel, been responsible for substantial physician acceptance of the program in Utah.

Obviously, the philosophy is built on confidence in the training and integrity of the large majority of physician practitioners in the State.

In PACE, we are concerned with the relationship between the care received by an individual patient over time and the best expectations of the profession. Though these expectations may pertain to utilization, they are most often oriented toward

quality considerations. The responsibility for deviation from those expectations may lie with the provider but, of course, may also be a result of patient behavior or of gaps in the continuity of care which are not particularly the fault of either party.

These expectations are expressed as screening guidelines and PACE includes a computerized logic which allows a broad range of such statements. Examples are displayed in Figure 2.

The process of developing and applying these screening guidelines is a dynamic one. As Figure 3 indicates, stimulation for guidelines is constantly coming from a variety of sources. These are presented to physician committees representing various specialties; they are, in addition, asked to imagine or recall ways in which inappropriate care might be or has been rendered in their experience within their discipline. We have found that physician committees can write meaningful screening guidelines within the constraints of claims data, given some initial orientation.

The guideline development process has been continuous since an initial large group of guidelines were developed several years ago. Where guidelines have led us up blind alleys, they have been deleted. Where the literature has reported something new, not previously understood or anticipated,

FIGURE 2

PACE

EXAMPLES OF SCREENING GUIDELINES

FLAG FOR PHYSICIAN REVIEW:

1. ABDOMINAL X-RAYS DURING PREGNANCY
2. HYPERTENSIVE PATIENTS NOT RECEIVING THERAPY FOR TWO MONTHS
3. LOMOTIL® FOR CHILDREN UNDER 2
4. MORE THAN TWO PENICILLIN/ANTIBIOTICS INJECTIONS IN 60 DAYS
5. T & A WITHOUT APPROPRIATE INDICATIONS (THREE EPISODES FROM DIAGNOSIS LIST #31)

FIGURE 3

PACE

DEVELOPMENT OF SCREENING GUIDELINES

AND SPECIAL STUDY TOPICS

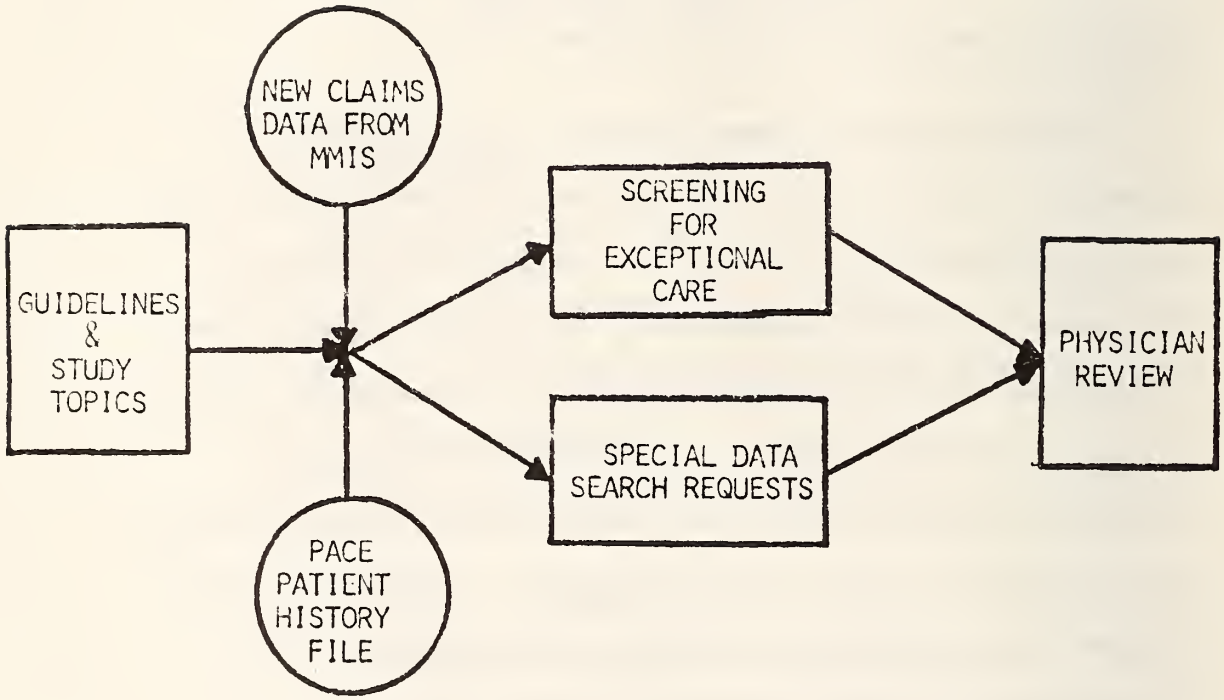
1. IDEAS FROM
   - LITERATURE
   - MMIS, PACE FREQUENCY DATA, STUDIES
   - SPECIALTY CONSULTANT AND REVIEWER EXPERIENCE
   - PROVIDER RESPONSE
   - STATE AND OTHER SUGGESTIONS
2. APPROVAL BY CONSENSUS OF
   - (INTERIM) AMBULATORY CARE REVIEW COMMITTEE
   - (FORMAL) APPROPRIATE SPECIALTY COMMITTEE
3. DETAILING OF PARAMETERS BY STAFF

new guidelines have been added. Guidelines have been tightened or loosened as needed to produce optimal reporting. There are currently about 300 guidelines operating in the system and being applied continuously to all relevant care reported out of the Medicaid program. These screening guidelines are applied against new claims data received each week from MMIS, and exceptional care is thereby identified. In addition, special searches of the data base are conducted to produce information for studies. The output of both of these processes provides material for physician review (see Figure 4).

The PACE Patient Treatment Profile report is displayed in Figure 5. This instrument is a key tool in review. Much credit for its development goes to OSI, our computer sub-contractor. The report was designed specifically to be usable by physicians without a great deal of explanation from, or decoding by, staff. All of the services rendered, diagnoses recorded, and drugs dispensed during the past 12 to 18 months appear in chronological order extending as many pages as necessary. Pertinent long-term diagnoses are permanently retained. Procedures are related to the diagnoses for which they were performed. The drugs, together with the quantity, and all services are identified with the physician of origin. The information is presented in narrative form, using descriptions of services which are readily understood by physician reviewers.

FIGURE 4

OVERVIEW OF PACE PROGRAM



UPRO P A C E PATIENT TREATMENT PROFILE

PATIENT NAME LEE xxxxxxx
SSN 519-00-0000
SEX M AGE 59

PROV SPEC	PROV ID	DATE OF SERVICE	FLAG #	DX REF	DESCRIPTION	UNITS	DIAG	PROC/ DRUG	AMOUNT BILLED	AMOUNT PAID
					A.....CONGESTIVE HEART FAILURE		427.9			
MED	11xx7				B ... HRT RHYTHM DISORDER NEC		416.9			
		11/06/75			A OFFICE VISIT-LMTD SRVC, ESTAB PT			90050	12.00	9.00
MED	11xx3	11/12/75			<> DIAZEPAM-5 MG TABS	100		004000501	10.00	10.00
MED	11xx7		1*		A.....CONGESTIVE HEART FAILURE		427.9			
		12/04/75			A.....OFFICE VISIT-LMTD SRVC, ESTAB PT			90050	12.00	9.00
					E ECG W/INTERPRET/PRT, 12 LEAD			93000	15.00	12.00
MED	11xx3				<> DIAZEPAM-5MG TABS	100		004000501	10.00	10.00
MED	11xx7	01/10/76			<> PROPRANOLOL-10 MG TABS	100		046045191	8.00	6.00
PHAR	30xx7	01/22/76			<> DIGOXIN-0.25 MG TABS	100		081024955	3.00	3.00
MED	11xx7				A ...CHR ISCHEMIC HRT DIS NEC		412.9			
					B ....CHEST WALL PAIN		789.2			
		01/23/76			E.....OFFICE VISIT-LMTD SRVC ESTAB PT			90050	12.00	9.00
					E EGG W/INTERPRET/RPT, 12 LEAD			93000	20.00	16.00
					<> INDOMETHACIN-25MG TABS	30		006002582	4.00	4.00
MED	11xx3	01/27/76			<> DIAZEPAM-5MG TABS	100		004000501	10.00	10.00
MED	11xx7	02/23/76			<> DIGOXIN-0.25 TABS	100		081024975	2.00	2.00
					A.....CONGESTIVE HEART FAILURE		427.9			
		04/09/76			A OFFICE VISIT-LMTD SRVC, ESTAB PT			90050	12.00	9.00
			2*		A ECG W/INTERPRET/RPT, 12 LEAD			93000	20.00	16.00

FLAG #	GUIDELINE NOT MET	MED APPRO	REVW INCON	NON PROV	EDUC	WARN-ING	NO PAY	REVW UNNEC	REVIEW DATE	REVI-EWER
1*	FLAG USE OF PROPRANOLOL W/HX OF CONGESTIV FAILUR-PAST 90D				x				03/26/76	34
2*	FLAG MORE THAN 2 EKG S PER 6 MOS. FOR HEART DISEASE (DXL #029)	( )	( )	( )	( )	( )	( )	( )		

Figure 5

The profile report also indicates any exceptional care detected in the screening process by means of a flag number. The guideline not met is described at the bottom of the page. Subsequent printings of the profile also report the reviewer evaluation of that exceptional care.

Though the PACE system has the potential to produce patient treatment profiles automatically each time exceptional care is encountered, we have developed more efficient approaches which allow the focusing of physician review toward the cases most likely to represent opportunities for intervention. The process is summarized in Figure 6.

The exception screening process generates a list of exceptions. Using simple selection criteria adopted by the review committee, the list is manually reviewed by staff to identify those cases which warrant physician attention. Review cases may consist of one or several patients. Staff then requests the patient treatment profile(s) needed for each case, pulls the file, if any, on the provider generating the exception, organizes the material for the reviewer, and highlights anything of particular importance found in the profile or background information.

As Figure 7 indicates, the professional review process focuses on new exceptional cases and utilizes supporting patient

FIGURE 6

SELECTION OF REVIEW CASES

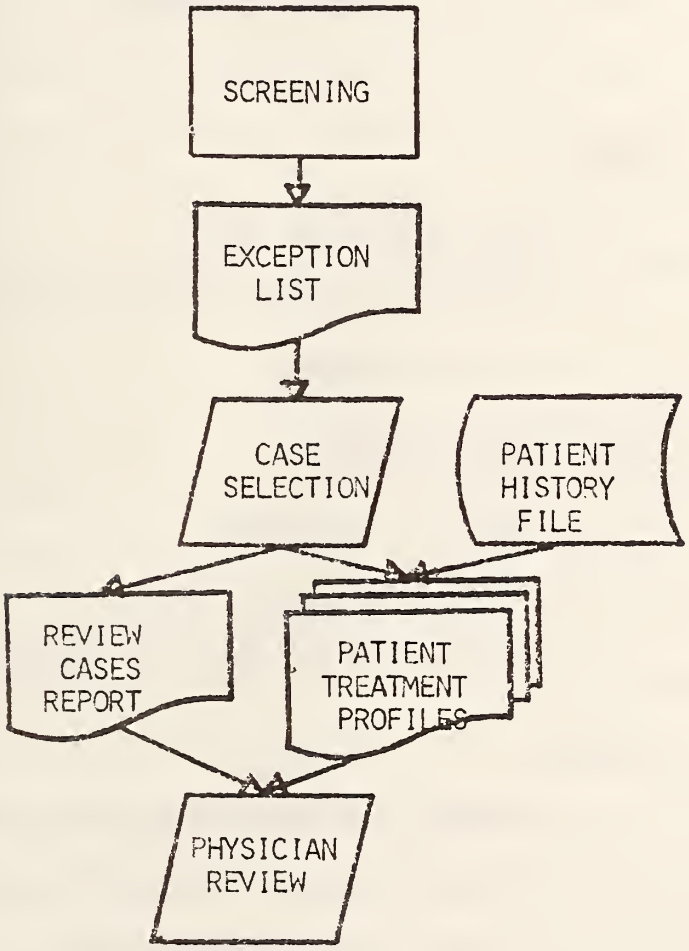


FIGURE 7

PACE

PHYSICIAN REVIEW

INPUTS

1. NEW EXCEPTIONAL CASES.
2. PROVIDER, PATIENT EXCEPTION HISTORIES.
3. SPECIAL STUDIES.

REVIEW CONSIDERATIONS

1. GUIDELINE REFINEMENT.
2. APPROPRIATENESS OF CARE.
3. DISPOSITION AND FOLLOW-UP ON CASE OR STUDY.

RESULTS

1. CHANGES, ADDITIONS TO GUIDELINE FILE.
2. LETTERS AND OTHER FEEDBACK TO PROFESSION.
3. REFERRALS AND ADVICE TO STATE.

and provider exception histories. The reviewer's responsibilities are to evaluate the appropriateness of the care rendered and to recommend the disposition and follow-up on each of the cases or studies being examined. In the process, the adequacy of existing guidelines is assessed.

As we have progressed, we have become aware that some situations involving inappropriate care are caused by factors which are out of the control or even knowledge of the physicians involved. Such matters include potential client fraud or misutilization of drugs and medical care services in general, child abuse, and other cases needing social services case worker involvement. These are referred back to the Medicaid agency for their action.

Where a physician's practice varies from peer expectations, we communicate with the physician. Our purpose is inquiry and information rather than accusation or sanction, unless we find that these more positive interventions fail to alter behaviors which we cannot endorse. When the practice seems inappropriate and persists in spite of our contacts, we refer claims back to the State without endorsement, which ordinarily results in nonpayment. Where needed, i.e., where a strong abuse pattern or possibility of criminal intent exists, we refer the entire file over for State investigation.

We have found that the large bulk of practitioners are willing to change given sufficient reason, and our experience is that negative pressures or coercion are seldom required. Physician providers must be confident, of course, that the review program is responsible and responsive and that no assumption of ill-intent automatically follows a finding of exceptional or inappropriate care.

Naturally, despite the support of the leadership of the medical profession in Utah for the program, individual physicians react defensively on occasion. A request for clinical background to understand a patient's drug pattern is sometimes interpreted as an attack on the provider's judgment, for example. We have found that a phone call, a visit, or an invitation to become acquainted with and participate in the review process can usually smooth ruffled feathers. Exposure to the people as well as the program convinces most that no malice or insensitivity are involved.

The first feedback to the profession occurred two and a half years ago. Since that time, contacts have been made with nearly a third of the physicians taking Medicaid patients in the State on sixty or more different topics, to say nothing of the many different patients involved. Figure 8 provides some statistics in this regard.

FIGURE 8

CONTACTS WITH INDIVIDUAL PROVIDERS

REGARDING PACE FINDINGS

OCTOBER 1, 1976 thru AUGUST 31, 1977

Total Documented Contacts	648
Letters	591
Providers	380*
Subjects	56

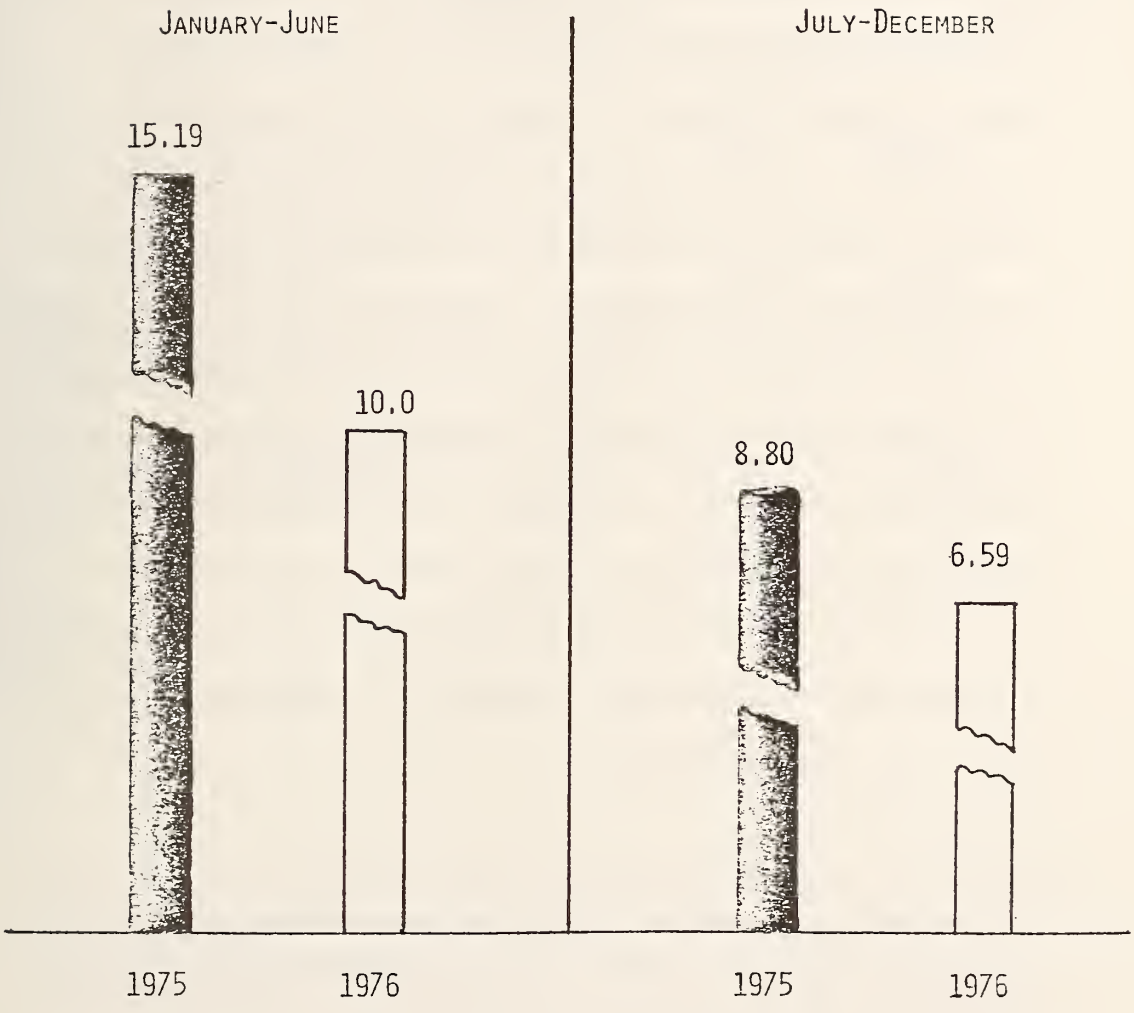
*1,250 physicians in Utah (out of 1,600) participate in the Medicaid program.

We and others are involved in a continuing effort to document the kind of impact this approach has had. Health Care Management Systems (HCMS) published an evaluation of PACE in July of this year, which is expected to lead to an overall assessment of the Utah Medicaid quality assurance and utilization review program. That study focused heavily on utilization considerations and dealt to a large extent with the early period of the program when injection procedures were an important subject. Figure 9 indicates the change occurring during the time studied with regard to the utilization of injectable penicillin, the most common injection in Utah. Comparing like seasons during 1975 and 1976, a drop of 34% in the utilization rate is noted between the two winter-spring periods and a drop of 25% is noted between the summer-fall periods. These changes correspond to our heavy emphasis on this subject during the last half of 1975. Furthermore, HCMS concluded that providers who were contacted individually by UPRO reduced their utilization of penicillin injections by an average of 7% per month over and above the overall change shown.

Perhaps more meaningful to us than simple utilization rates is the change in the rates of compliance with the guidelines following our contact. This would be evidenced by a drop in

FIGURE 9

INJECTIONS PER 100 OFFICE VISITS
PENICILLIN



exception rates.*

We studied 108 contacts made during 1976 regarding subjects where guidelines had been constant to determine if compliance improved following contact. As you will observe from Figure 10, about five-sixths did.

Preliminary results from a study underway regarding the impact of PACE on improper use of tetracycline in pediatric cases illustrate the magnitude of the effect on physicians contacted. These are shown in Figure 11. An overall decline of 27% in the inappropriate use of tetracycline occurred in the six months following a general educational mailing from the PACE program to all physicians on that subject. Physicians contacted individually because of inappropriate tetracycline prescribing displayed, with the exception of one apparently incorrigable practitioner, a striking improvement over and above that general trend: during the four months following our first contact, the compliance rate for other contacted providers improved an average of 4.3% more than that of their peers in general, compared to the four months preceding our letters.

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*Now it has to be emphasized that care may fail a guideline and yet not be inappropriate. Thus, the rate of inappropriate care on a given issue may be much smaller than the exception rate. Generally, however, the use of exception rates can be justified as a better surrogate measure of inappropriate care than, for example, raw utilization statistics.

FIGURE 10

PHYSICIAN RESPONSE

TO

PACE CONTACTS

Number of physicians contacted	108	100.0%
Number of physicians showing significant reduction in exceptional care	92	84.1%
Number of physicians showing no change	6	5.1%
Number of physicians showing increase in exception rate	10	9.3%

Figure 11

CHANGE IN EXCEPTIONAL TETRACYCLINE USE
ASSOCIATED WITH PACE CONTACT

Table I

	All Providers	
	7/76-12/76	1/77-6/77
Tetracycline prescriptions for children under 8 (exceptions to guideline)	140	150
All tetracycline prescriptions	3589	5252
Exception rate per 100 tetracycline uses	3.90	2.86
Change	-26.7%	

Table II

	Share of Total Exceptions (Exceptions for specific provider per 100 total exceptions)		
	4 months prior to individual letter	4 months following letter	% change
Provider X*	7.07	17.28	+144.4%
Other contacted providers	44.49	25.31	- 43.1%
Total for 16 contacted providers	51.56	42.59	- 17.4%

* Note: Provider X was contacted again (this time in person) in May, 1977. His practice for the four months following this second contact improved 84.1% more than the general trend.

The program, then, seems to have had the following nine types of benefits or results:

1. Generation of subjects for physician education.

2. Modification of exceptional practice patterns.

3. Service to physicians in the form of information regarding conflicting care and abnormal drug pattern cases among their patients.

4. Identification of opportunities for public/patient education.

5. Basis for productive working review relationship between doctors and State administration.

6. Surveillance of medical necessity and of utilization of services.

7. Assurance to the physician leadership and, particularly, tne State agency that the bulk of care is appropriate and, on particular topics of concern (e.g., clindomycin, cephalosporins, anticholinergics), that inappropriate practice is rare or not evident.

8. Identification of cases needing social service attention (e.g., multiple trauma in pediatric cases.)

9. Referrals to State of client and provider cases involving program abuse or potential fraud.

Those physicians that have been associated with the PACE program, and we believe the State administration as well, are enthusiastic about its accomplishments and its yet untapped potential. The approach is as flexible and responsive an approach as we can conceive, given the limitations of the data set and the resources available for ambulatory review.

We acknowledge that much is yet to be learned. In fact, as has been discussed elsewhere in this conference, we have proposed to undertake a demonstration project to determine whether more efficient approaches can be utilized to do ambulatory care review combining some of the best of Surveillance and Utilization Review with the most successful techniques of PACE.

The PACE program requires a substantial commitment of resource, but redeems itself in terms of the range of issues which can be addressed and its yet untapped potential for application to other aspects of care beyond those in the ambulatory setting. We have begun using the system in review of drug utilization in nursing home settings and are experimenting with a variety of ways of utilizing the PACE program in support of acute care review and vice versa.

I must emphasize in closing that PACE works because the leadership of the medical profession in Utah is committed and dedicated to the program because the State has been willing to entrust the management of the review responsibility to an independent body of physicians.

Note: I wish to express my appreciation to James Q. Cannon of the Utah PSRO staff for his help on this report.

Pennie S. Bjornstad, Administrator
Medical Services Section
Iowa Department of Social Services

Medicaid and the Health Care Provider in Partnership
Iowa's Approach to Establishing and Maintaining a Working Partnership With Health Care Providers

This paper is intended to provide an outline of Iowa's procedures for establishing and maintaining relationships with providers. In order to describe Iowa's current system it is necessary to first discuss the history of Iowa's involvement of providers in the policy formulation process. After a brief history of Iowa procedures we will discuss specific developments that have taken place in the program over the last few years which involved provider participation. Finally, an example of exactly how the health care provider is involved in policy formulation will be explained.

History of Iowa's Involvement of Providers in Policy Formulation in Title XIX

In 1959 the Iowa State Department of Social Services implemented a program for direct payments to practitioners for services provided recipients of public assistance. The Medical and Remedial Care Plan provided for payment for many medical services. In order to assist the Department, professional advisory committees were established for each profession participating in the program.

In 1963 the Department began the Medical Assistance for the Aged program which had been authorized by Congress in passage of the Kerr-Mills Act in 1960. At that time an Advisory Council was established to advise the Department on the program. Members were appointed by their professional associations.

In 1965 Congress passed the Title XIX amendments to the Social Security Act which extended the Medical Assistance program as outlined in the Kerr-Mills Act. The new Title (XIX) extended the advantages of the Medical Assistance program not only to the aged who are indigent but also to needy individuals in the dependent children, blind and the permanently and totally disabled programs.

Section 1902(a)(22)(d) of Title XIX provided that a State plan for Medical Assistance must include descriptions of "other standards and methods that the State will use to assure that medical or remedial care and services provided for recipients of medical assistance are of high quality." Policy directives were issued by an Ad Hoc Committee on Medical Assistance in 1965 which outlined the need for a State Medical Care Advisory Committee to meet the requirements of the law.

In establishing such a committee in Iowa the decision was made to designate the chairman of each advisory group as a member of the medical care advisory committee. This group was established to serve as a task force in assisting the Department

of Social Services in implementing Title XIX in Iowa. The task force had two primary functions: (1) educational and interpretive, and (2) advisory and consultative. The Task Force educated others concerning the Title XIX requirements and interpreted the program to persons and organizations in the community who were influencial in shaping legislation. The second function was to provide advice and consultation to the Department concerning population groups having special needs, unmet needs in medical areas, and the level and scope of the program which should be provided.

When Title XIX was implemented in Iowa the Task Force became the Medical Assistance Advisory Council. The professional advisory committees continued to serve the Department to give advice and consultation on the following:

a. Policies governing payment;

b. Limitations or restrictions as to type and amount of service provided; and

c. Corrective or disciplinary action for participants.

In 1971 Federal regulations were issued on the establishment of Medical Care Advisory Committees. These regulations are cited at 45 CFR 246.10. At the time these regulations were issued the Iowa Medicaid program had been functioning with the Medical Assistance Advisory Council for four years.

As can be seen from the above historical outline, the Iowa medical programs have involved the provider community in policy formulation and program decisions from the beginning. By the time the Medicaid program was implemented in Iowa relationships and lines of communications with professional associations had long been established and had proven to be of great assistance to all parties.

The current Medical Assistance Advisory Council membership is as follows:

1. Representatives from provider groups.

2. Legislators.

3. Public representatives.

4. Other State department heads.

Program Developments

From July 1, 1967, when the Iowa Medicaid program was established, until 1969 there were few major changes in the program. In 1969, the State experienced insufficient funds where the money appropriated was not sufficient to continue the program in its current form. At that time the decision was made to eliminate coverage of the medically needy from the Iowa program. From 1969 through 1975, the Department of Social Services and the

providers participating in the Medicaid program were not faced with any major crises. In 1975, however, it became evident that the money appropriated for Fiscal Year 1976 was not adequate to continue the program spending at the current level. A meeting was held with the Medical Assistance Advisory Council in December, 1975 to consider the changes needed. The Medical Assistance Advisory Council at that time recommended that no drastic cuts be made in the Iowa Medicaid program. They did recommend some cost containment measures such as limiting the number of hospital days allowed in the program and also recommended that the Department request a supplemental appropriation from the Iowa Legislature when it reconvened in January. In January, 1976, the Iowa Legislature did appropriate an additional $13.8 million to continue the Iowa Medicaid program in its current form.

Since it was evident that some changes would need to be made because of increasing costs in the program, the Medical Assistance Advisory Council recommended to the Department that it contact each professional advisory committee regarding recommendations from them as to cost containment alternatives in their area. The Department was then to formulate a proposal to present to the Medical Assistance Advisory Council. This was done in April, 1976. All of the cost containment alternatives agreed upon by the Department and the professional advisory groups were approved by the Medical Assistance Advisory Council.

No drastic change was made in the Iowa Medicaid program at that time because of intervention of the Iowa Legislature. In appropriating money for Fiscal Year 1977, the Legislature requested that the Department make no cuts in the program until a study could be made by a private consulting firm and recommendations made to the Legislature. The study was done in the summer of 1977, and recommendations were presented in August, 1977. As a result of this study the Iowa Legislature indicated certain allowable cost containment measures that could be taken by the Department. Most of these measures had been recommended by the professional advisory groups in the spring of that year.

Throughout these financial crises the Department of Social Services worked closely with the provider community.

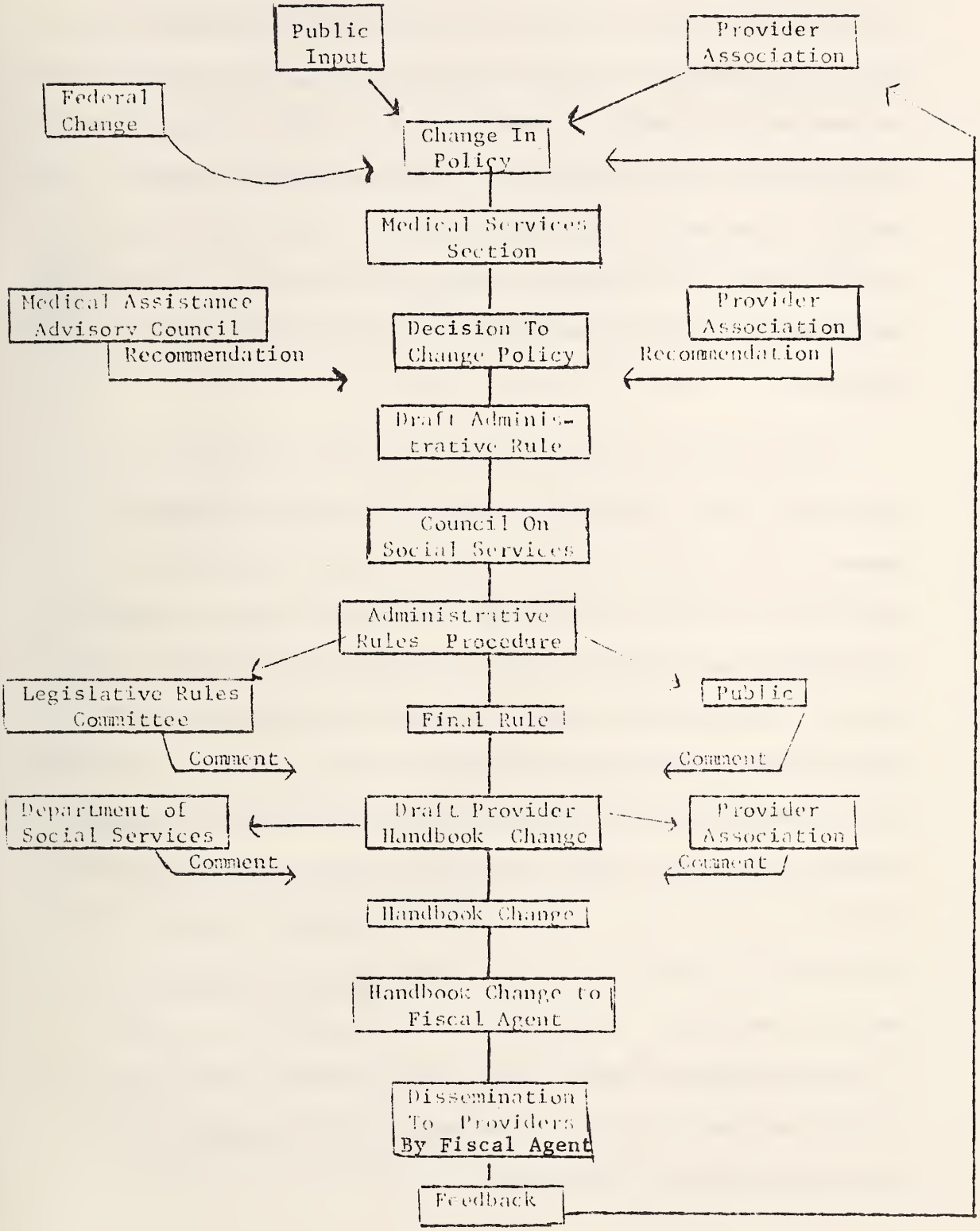
Provider Input into the Policy Formulation Process

Input from providers comes through two major avenues. One is through participation on the Medical Assistance Advisory Council and the other is through membership on a professional advisory committee. The Department of Social Services meets periodically with the Medical Assistance Advisory Council to ask for advice and recommendations concerning proposed policy changes. Prior to making any change in a policy which would effect a provider group an attempt is made to meet with the advisory group from that specific provider association.

Attached is a chart (Figure 1) which provides an overview of the way policy is formulated in the Medical Services Section. In order to discuss the policy formulation process in detail an example will be used of policy development. The example being used is a policy change which was recommended by a provider association. Currently in the Iowa Medicaid program it is necessary that all prescriptions be signed by a physician. In order to assist the pharmacist with oral prescriptions a form is available which authorizes the pharmacist to sign the physician's name on a prescription which has been phoned in to his office. Regulations have required that this authorization to sign a physician's name must be on file in the pharmacy's office. Because of the paperwork involved with this, a recommendation was made that this requirement be eliminated and the procedure of obtaining this authorization form be made voluntary for the pharmacist. The Medical Services Section set up a meeting with the Iowa Pharmaceutical Association's professional advisory committee and included this possible change as an item on the agenda. After discussion the Department's Medical Services Section agreed to draft such a policy change. At the next meeting of the Medical Assistance Advisory Council this possible change was discussed with them and recommendation was made from the Council that the change be made.

The next step in the process involved the administrative rules procedure in the State of Iowa. All operating rules and regulations

Figure 1



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of the Department are published in the Iowa Administrative Code. Since the policy outlined was contained in the Iowa Administrative Code it was necessary to draft a change to go through the Administrative Rules procedures. The Administrative Rule has been drafted and is ready for submission to the Council of Social Services. The Council must approve the rule before any further action is taken. The Council of Social Services is a five member policy-making body, all members of which are appointed by the Governor.

Upon receipt of approval from the Council of Social Services the rule is filed with the Secretary of State and published for comment by the public. At this time the public does have an opportunity to have input into the policy formulation process by commenting on any proposed rules. The rule also has to be reviewed by the Legislative Administrative Rules Committee. At that time the Legislature has a chance to also comment on the rules. After the rule is published in its final form the Medical Services Section will draft a change in the provider handbook material to reflect the change. After the Handbook material is finalized it is sent to the fiscal agent for printing and dissemination to providers. Any feedback to the Department concerning the Handbook material may be made either by direct contact with the Medical Services Section or through the fiscal agent or the professional provider association.

The above example describes a typical process of making a change in policy in the Iowa Medicaid program. This example of course shows the ideal approach for making policy changes and allowing provider input into those changes. There are occasions when, because of changes in Federal regulations or an immediate crisis, it is not always possible to follow the process described above. In the Iowa Medicaid program, however, we are attempting to always have contact with the professional provider association concerning any changes which will affect that provider group.

The Iowa Medicaid program is in the process of developing and implementing a Medicaid Management Information System (MMIS). The MMIS project team is in the requirements analysis phase at this time. During this phase the MMIS project team is attempting to meet with each professional provider association to determine the requirements of that association. On December 7, 1977, a meeting was held with the Iowa Pharmaceutical Association in order to determine their needs in regard to the Medicaid Management Information System. Among the topics of discussion at that meeting were the following:

1. Provider agreements.

2. Collection of diagnosis code on pharmacy claims.

3. A revision of Handbooks for Pharmacists.

4. Various other suggestions from the Pharmaceutical Association.

The involvement of the provider groups in the requirements analysis for the MMIS is another example of Iowa's involvement of the provider in the policy formulation process.

At the beginning of the Iowa Medicaid program handbooks for each provider group were developed by the Department. These handbooks outline the scope of service, the basis of payment, billing procedure and procedures for checking recipient's identification cards for eligibility purposes. The handbook is used as a guide to the provider concerning participation in the Iowa Medical Assistance program.

Provider Relations

The Iowa Department of Social Services contracts with a fiscal agent to perform certain functions of administering the Iowa Medicaid program. Duties outlined in the contract include the following:

1. Prepare, subject to approval of form and content by the Department, informational materials and billing forms for providers participating in the program. The fiscal agent assigns provider numbers and distributes all informational material and billing forms to providers.

2. The fiscal agent responds promptly to inquiries from providers and the Department concerning the payment status of claims and other matters. Responses to providers are to be made on or before the date specified by the Department.

In order to carry out the above duties and to assist providers, the fiscal agent does have a Provider Relations Department. This Department includes field representatives who visit institutional providers and physicians.

MODULE II WORKSHOP PAPERS

WORKSHOP C - UTAH APPROACH
ORGANIZATION OF MEDICAL PROGRAM/PROVIDER RELATIONSHIP

Workshop Goal

Identify the need for, and develop, recommendations on improving the working relationship between Federal and State officials and health care providers.

How To Be Done

- Present and consider different viewpoints during the discussion of the major issues.

- Develop action recommendations which will identify the important elements in developing an effective working relationship between the provider and the States and Federal government.

Modules I and IV
Preparation of New Relationship Action Recommendations

Proposed Approach to Develop Action Recommendations:

1. Problem Identification and Clarification - What are the major issues and/or problems which the States, Federal government and providers must address in the Medicaid program?

2. Need for a More Effective Partnership - Will the development of a more positive and effective working relationship

between the Federal government, States and providers assist efforts to resolve existing problems?

3. Organization and Responsibilities of the Relationship - How should any new relationship between the States, providers and Federal government be organized? What should the responsibilities of each participant be in the new relationship?

4. Implementation - How can the new relationship best be implemented?

Issues and Problems

Impacting Provider-Medicaid Program Relationships

The Workshop C Group identified and discussed a number of issues and problems that are impacting provider (practitioner)-Medicaid program relationships in their States. The following is an outline summary of the issues and problems identified:

1. Lack of incentives in existing Medicaid programs to encourage providers to participate.

   - In many cases and areas providers would rather not be enrolled in the program or provide services to the Medicaid recipient.

2. Communications between providers and Medicaid programs are not formally established in many cases and, therefore, do not take place on a regular or purposeful basis.

   - Communications are usually initiated around critical issues or as reactions to Medicaid program policy, reimbursement or procedures.

3. Medicaid programs in many States do not maintain effective public information or education programs.

4. Relationships between providers and the Medicaid program are not well established or understood.

   - In many cases and areas providers do not understand how to relate to or impact the policy making or operations of the Medicaid program.

5. Providers and Medicaid agencies are viewing and operating within the Title XIX program from different perspectives.

   - Relationships have not always been based on a complete understanding of this point in the past.

6. Reimbursement levels are not accepted as being equitable or adequate by provider groups in a number of areas.

7. Providers and provider groups do not feel they have sufficient input into the functions and decisions of the Medicaid programs.

   - They are forced to operate with the programs from a reactive posture.

8. The Medicaid program tends to cause a discrimination of patients receiving medical care within the total medical care delivery system.

9. Federal and State legislation and regulations tend to directly impact provider-Medicaid program relationships.

   - Providers view the program as highly complex and rigid within a bureaucracy, which does not allow for the type and quality of health care that is needed.

10. Health care costs are having direct impact on the State Medicaid programs.

    - The costs are rising at such a rapid rate that the costs to States are becoming critical and alarming. States tend to eliminate or restrict services, or institute aggressive cost containment programs. Any of these approaches could impact levels and quality of care available to Medicaid recipients.

11. In most areas and programs, the structure or procedures do not exist to provide for adequate or effective referral of Medicaid recipients from medical to social services.

12. Federal legislative and regulation preparation procedure does not provide for purposeful joint State program participation or input.

    - Regulations and legislation are not providing adequately for the specific circumstances of various Medicaid programs around the country.

Basic Assumptions

These assumptions were developed on the basis of the experience of the State and provider representatives and their involvement in the Title XIX program in their areas.

1. The Medicaid program is dependent upon the existing health care delivery system and providers to meet the health care needs of Medicaid recipients.

2. Working relationships between the State Medicaid programs and providers (practitioners) which have been based only on provider or provider group reaction to Federal and State regulations and policy have not been effective.

3. Providers and provider groups can provide valuable input to the Medicaid program in the development of policy, review and program elements.

4. State Medicaid programs will not be able to maintain an optimally effective program unless they develop purposeful working relationships with, and involvement of, providers and provider groups.

5. The States may not be able to achieve and operate their Medicaid programs at an optimal level of integrity without more purposeful, structured and positive involvement of providers and provider groups.

   - An optimum level of integrity cannot be achieved and maintained by merely establishing an aggressive and effective fraud and abuse program.

Workshop C - Recommendations

The problems and issues identified and discussed by the participants in Workshop C emphasized that, in their opinion, the reaction approach to relating with providers and provider groups as Medicaid programs were not effective. The recommendations that follow are based on the problems identified and assumptions which the group discussed and supported.

1. State Medicaid programs should establish policy and implement action plans as necessary to modify their working relationship with providers and provider groups so as to provide for more purposeful involvement and participation.

2. More formalized and well defined organizational structure should be established within the State Medicaid programs to stimulate and facilitate increased and more purposeful involvement of providers and provider groups.

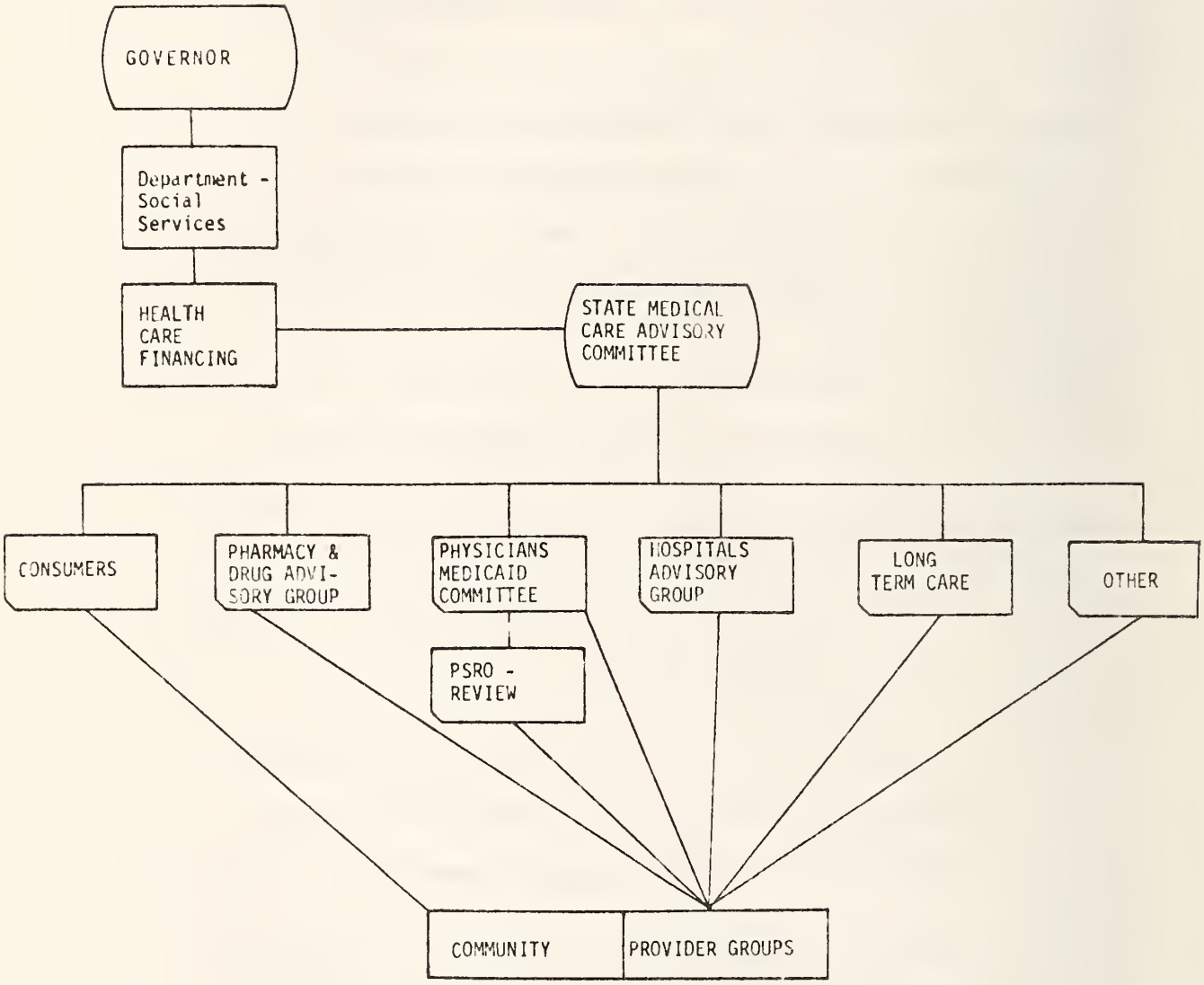
   - This organizational structure should be planned and implemented on a "Common Sense" approach. It should not be so formal and mechanically structured that it restricts flexibility or cannot be effectively operated because it is so burdensome.

   - It should be established around the organizational pattern described by Figure 1, based on the circumstances of the individual Medicaid programs.

   - Effective and purposeful State Medical Care Advisory Committees should be established with each program. The membership of this committee should include the chairman or representative from each of the standing provider group advisory committees. This membership

Figure 1

ADVISORY COMMITTEE ORGANIZATION & COORDINATION



arrangement could greatly strengthen the capacity of the Medical Care Advisory Committees to identify issues, consider problems and develop short and long range recommendations for the operation of the Medicaid programs. The responsibilities of the State Medical Advisory Committee should be based on those defined in Figure 2.

- Provision should be made by the Medicaid agencies and provider groups to provide for adequate staff support to assist the Medical Care Advisory and provider group advisory committees.

- While this organization and staffing pattern may vary from State to State, it could be used as a basic approach to establish more formal and purposeful involvement of provider groups.

3. Any organizational approach used by a State Medicaid program should include explicit and well-defined procedures to guide provider group involvement. Providers and provider groups should understand how they can relate with, and have an impact upon the program and decision making on a continuing basis.

   - The Medicaid agency should be prepared to assume the lead in developing the organization and procedures.

However, it should be recommended that provider groups be invited to provide input to the structuring of the organization and operation procedures.

Figure 2

State Medical Care Advisory Committee Responsibilities

1. Represent consumers and providers in advising the State Medicaid agency on the continuing operation and development of the Medicaid program.

2. Provide a forum for provider, consumer and State government discussion and resolution of Medicaid related problems and issues.

3. Develop recommendations for long range planning and development of the Medicaid program.

4. Monitor and review the continuing operation of the program.

5. Review and assist the State Medicaid agency in the continuing development of program policy.

6. Develop, propose and review alternatives for program and budget development or modification.

7. Monitor and participate in efforts to assure the integrity of the Medicaid program.

4. State Medicaid agencies should initiate programs to modify recipient attitudes about, and relationships with, the program and providers. This program should provide for:

   - Increased education of recipients when enrolled in the Medicaid program and on a continuing basis, as may be needed. The State Medicaid and related agencies should assume the lead responsibility for providing and identifying the continuing need for education. Provider groups should also be involved in this education process, as requested.

   - The program should provide for effective and timely referral of recipients (patients) by medical service providers to other social services related programs, as the need is identified.

   - The Medicaid agencies and provider groups should structure more cooperative relationships in the planning and delivery of services to recipients. This cooperation should be directed to achieving more accountable delivery of services, increased quality of care and appropriate use of services by recipients.

5. State Medicaid agencies should plan and implement approaches to provide more incentives to providers to enroll and participate in the Medicaid programs. These incentives might include:

   - Adequate and equitable reimbursement levels.

   - Identification and resolution of problems providers may be having in conducting business with and receiving Title XIX payment for the services they are providing.

   - Provision for more purposeful involvement in policy and procedures development, quality assurance, and program review and monitoring.

6. While effective cost management (containment) is an important objective in the Medicaid program, Title XIX reimbursement levels should move more toward the reasonable and customary charges of providers, as it may be possible. Cost containment must be balanced to ensure that in containing cost, Medicaid programs continue to provide adequate and quality services and reasonable fees for service.

   - Timely payment of providers for services delivered should remain a major objective and concern of State Medicaid agencies.

7. The Federal government's Health Care Financing Administration should carefully evaluate its present Medicaid program organizational structure, policy and guidelines preparation procedures, and relationship with State Medicaid agencies and modify them as necessary to support more purposeful and effective Medicaid program-provider relations.

   - Establish and/or maintain a national advisory group on Medicaid policy and procedures. While it is recognized that HCFA seeks and receives broad inputs in the preparation of regulations and guidelines, a standing body representing the Medicaid programs in the State could serve as a valuable resource and reaction body. The State Medicaid Directors' Council may be an existing body which could meet this need. More formal consideration of joint State inputs and views of legislative, policy and operations issues by the Federal government could have positive impacts on efforts to improve Medicaid program-provider relationships.

   - Regional Offfices should assume more of an advocacy-liaison role between State Medicaid programs and HCFA in Washington, D.C., on issues related to the direction and operations of the Medicaid program.

8. The Institute for Medicaid Management and HCFA should carry out specific action to continue the formed efforts initiated at the Orlando Conference to improve Medicaid program-provider relationships nationwide.

Summary

The responses of the participants in Workshop C were that the Conference had assisted them to review the need for and understand ways to improve Medicaid program-provider relations. The Institute for Medicaid Management should be complimented for its efforts in this area and urged to continue.

List of Workshop C Participants

Name	Represent
James Bramham, M.D.	American Academy of Pediatrics (Private Practicing Pediatrician)
Richard P. Bigelow	Utah PSRO
Rich Hungerford	Optimum Systems Inc.
R.W. Millar	Hawaii Medicaid
Elizabeth K. Mullin	The Computer Company
Joseph P. Flynn	New Mexico Health and Social Services
David Bennahum, M.D.	Presbyterian Hospital
Carl R. Coggins	DHEW - HCFA/Medicaid
Paul Meyer	South Dakota - Social Services
Edward Smith, M.D.	Nebraska Medicaid
Ernie Rumpf	Wyoming Medicaid
Jean G. Barker	North Carolina Medical Peer Review
Emmett L. Sellers	North Carolina - Social Services
Edward Cords, Ph.D.	Health Care Management Systems
Edward J. Smith	Utilization Review, Nebraska

MODULE III WORKSHOP PAPERS

Jack L. Mulligan
Dena Strum Klein
Edith Mardiat
University of Missouri-Kansas City
and Truman Medical Center

WORKSHOP A: HOW CAN CHANGES IN PROFESSIONAL SCHOOL TRAINING INFLUENCE THE QUALITY OF PATIENT CARE AND COST CONTAINMENT?

It is important that medical students learn to incorporate Quality Assurance (QA) and Cost Containment (CC) into their clinical thinking and actions. The introduction of QA and CC into curricula at medical schools at Toledo and Kansas City provides an opportunity for students to formally evaluate their patient care and to make decisions and take action to improve care and contain costs.

At the University of Missouri-Kansas City (UMKC) and Truman Medical Center (TMU), we have found that medical students, clinical faculty, and other health professionals will participate in QA and CC coordinated with clinical education and patient care on Department of Medicine clinical rotations; they will use the evaluation (audit) data and experience for self and peer decisions and actions. Students and others will participate in the formal hospital staff activities of Patient Care Evaluation (PCE) committees of the Department of Medicine and other clinical services; their decisions and actions affect departmental practice and educational standards.

The handouts provided at the workshops summarize:

1. The composition of the Department of Medicine's multi-professional Docent Team;

2. Medical Students' Audit Activities on Docent Teams, since August, 1976;

3. Goals and functions of the multiprofessional PCE committees with medical students as members;

4. Schema for Reporting and Conducting PCE studies, from medical students to the Board of Directors;

5. "Decreased Hemoglobin," an example of an audit criteria list and clinical guideline for use in clinics, wards, and the emergency room;

6. Questionnaire for estimating charges for frequently ordered tests, procedures, and drugs - used for increasing awareness of costs of care and as a measure of knowledge of charges generated by physician orders;

7. Questionnaire for estimating charges for tests and drugs that are specific for congestive heart failure - used in conjunction with audit of congestive heart failure to enhance cost-consciousness and to measure problem-specific charges generated by physician orders.

Eighteen months ago a main problem was to gain acceptance for QA among students, faculty, and health professionals so that they would use QA activities for clinical and educational purposes as well as for accreditation. Today, we are confronted with the problem of trying

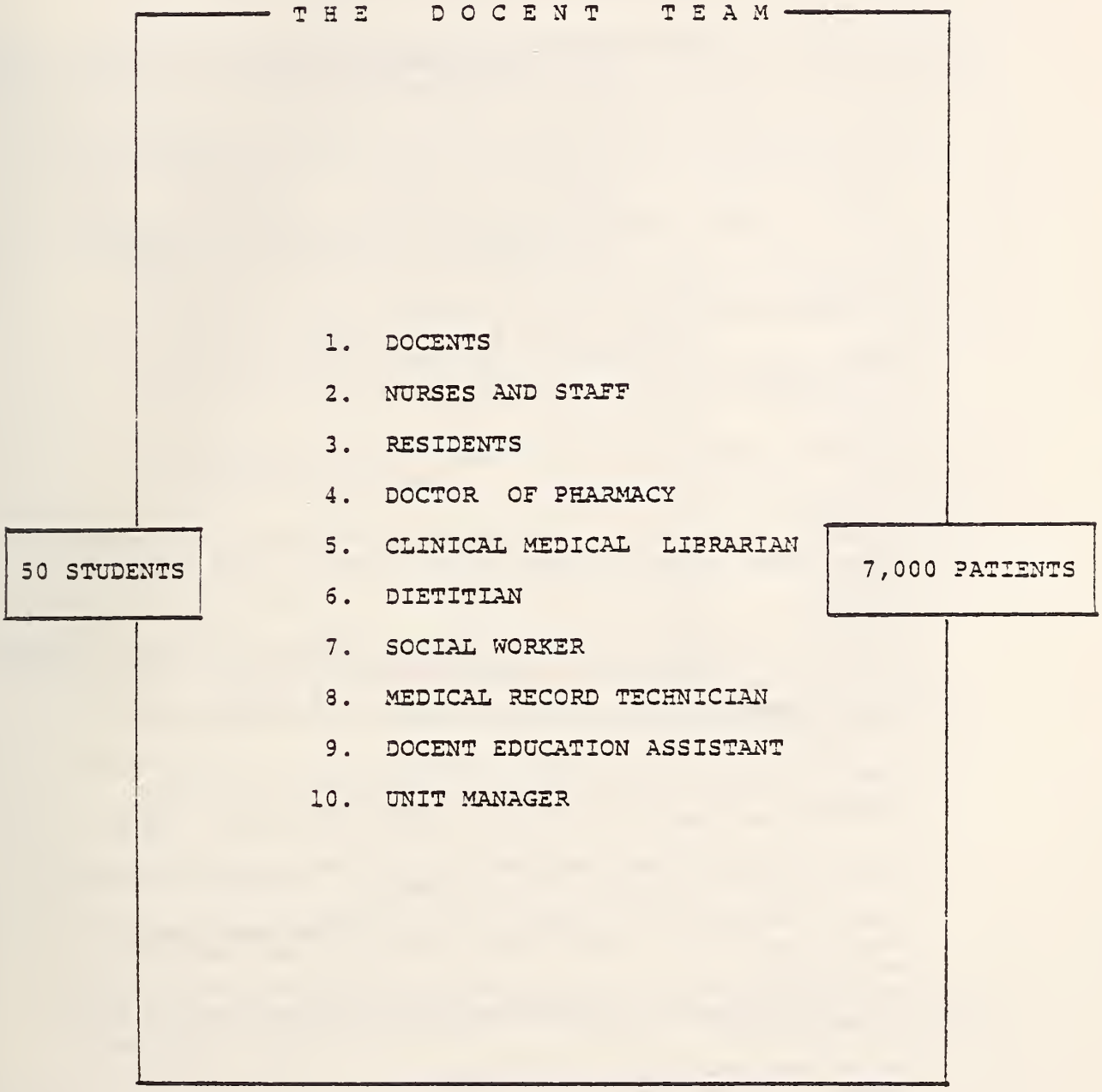
to respond to all the requests for audit assistance and consultation from the teams and departments.

Students, faculty, and health professionals are making decisions and taking actions on the basis of practice analysis. We have begun to assess how these activities affect the evaluation as well as clinical attitudes, knowledge, and skills of medical students. In the first year and a half we have gathered baseline data from audits, questionnaires, minutes, and discussions. Appraisal of the PCE experience by students and repeat audit data suggest that participation in QA does influence their clinical performance. We do need to have more data to support or refute this relationship. We do not know, as yet, how improved clinical performance relates to patient outcomes and costs of care. To this end, we plan to undertake more formal assessments of the effects of participation in QA and CC on learners, patients, and costs.

We recommend that medical students be invited to become members of audit committees in teaching hospitals and that all committee activities be open to students. On another level, we encourage the participation of students in QA on clinical rotations. We have found that students are valuable and active participants in QA activities. It is our intent and hope that the attitudes, knowledge, and skills they learn in the process will serve them and their patients.

UNIVERSITY OF MISSOURI - KANSAS CITY SCHOOL OF MEDICINE

TRUMAN MEDICAL CENTER



Medical Students' Audit Activities on Docent Teams
Truman Medical Center-West
August, 1978 - November, 1977

	Docent Team	Topic	Docent Unit Initiating Audit	Criteria Developed	Data Display Completed	Analysis Done	Follow-up on Recommendations	Reported to Team PCE Committee	Department of Medicine Audit (Approved by PCE Committee)
Red		Microcytosis	R-1	X	X	X	X	X	X
		Decreased Hemoglobin	R-1	X	XX	XX	X	X	X
		CHF	R-2	X	X	X	X		
		Pneumonia	R-4	X	XX	XX	XX	XX	X
Gold		Grand Mal Epilepsy	G-1	X	X	X			
		Parkinsonism	G-1	X					
		Acute CVA	G-1	X	X				
		Acute MI	G-1	X					
		Acute Renal Failure	G-1	X					
		COPD	G-1	X					
		Bacterial Pneumonia	G-1	X					
		Cholecystitis	G-1	X					
		Acute MI	G-2	X	X	inc			
		Diabetes Mellitus	G-2		X				
		Cirrhosis	G-2	X					
		CVA/Stroke	G-4	X	X				X
		Parkinsonism, revis.	G-4						
		G.M. Epilepsy, revis.	G-4	X	X	X	X	X	X
		Acute MI	G-3	X	X	X	X		X
Green (Blue)		Gonococcal Infection	B-3	X	X				
		Acute Pancreatitis	B-3	X	X				
		Thromboembolitis	Gr-4	X					
		Acute Alcohol Withdrawal	Gr-4	X	X				

Assessment: More than 100 medical students have participated in combined education in clinical topics and in patient care evaluation during Docent Rotations with 10 Docents.

Formal evaluation of educational experiences has been conducted on Red-4 students (Red Team - 4th Floor) and Gold-4 students (Gold Team - 4th Floor).

Clinical performance data on two audit topics have been provided to students and Docents from recent audits performed on two Docent Rotations, about one year apart (Red-4 students and Red-1 students).

Three Red Team groups of students have conducted audits of Clinical Methods (Thoroughness of PCMR methods).

Two Red Team groups of students have participated in surveys and discussion of changes generated by physicians' orders.

XX = original & recheck audits

11/20/77

TRUMAN MEDICAL CENTER

Functions of Patient Care Evaluation Committees for

Each Team, Service, and Site of Care

General Description of Goals: Responsible for the development, implementation, management, and utilization of patient care evaluation activities in order to:

1. Identify and respond to the clinical, educational, and administrative needs of the respective team, service, and site of care;

2. comply with external federal, state, and Joint Commission on the Accreditation of Hospital requirements;

3. serve the institutional interests of Truman Medical Center and the UMKC School of Medicine by the development of

   a. comparable standards of practice and data on conformance

   b. an aggregated clinical data base providing linkage to, and coordination of, evaluation activities*

4. prepare health professionals to assume and carry out a leadership role in meeting their current or future professional responsibilities in quality assurance.

Proposed Composition per Team, Service, and Site of Care:

1. Physician delegate of the senior docent or chief of service

2. Resident(s)

3. Nurse(s)

4. Medical Student(s)

5. Accredited Record Technician

6. Other health professionals or administrative representatives, as appropriate, e.g., dietician, Doctor of Pharmacy, Clinical Medical Librarian, therapists

Functions:

1. Define team, service or site specific needs for evaluation and establish practice-related priorities.

*Docent Unit Activity Reports, Utilization Review, Patient Care Audits, Clinical data of Uniform Hospital Discharge Data Sets, hospital charges, Quarterly Profile Examination

2. Set objectives for Q.A. activities in consideration of both inpatient and outpatient care.

3. Coordinate group activities for the purpose of

   a. selecting topics for evaluation;

   b. developing criteria or standards;

   c. analyzing data: disease-specific and POMR audits, cost data, UR, surveys/observation;

   d. formulating educational or remedial recommendations to prevent re-occurrence of identified inadequacies;

   e. follow-up on the implementation of recommended actions;

   f. disseminating existing information of findings as applicable to the docent team, service or site of care.

4. Teach members of their team, service or site, (with support and information resources of the TMC Q.A. Program staff) evaluation techniques:

   a. the TMC model of Disease-specific Patient Care Audit;

   b. standards and POMR format for clinical recording;

   c. basic analysis of hospital charges;

   d. interpretation of Utilization Review data;

   e. DUAR Analysis linked to clinical statistics;

   f. surveys/observation.

5. Report patient care evaluation objectives, plans, problems, and activities to their respective senior docents, service chiefs, or directors of site of care.

6. Communicate objectives, plans, problems and activities to QAP Administrator.

7. Select a delegate per team, service, and site of care to attend scheduled QAP meetings in order to:

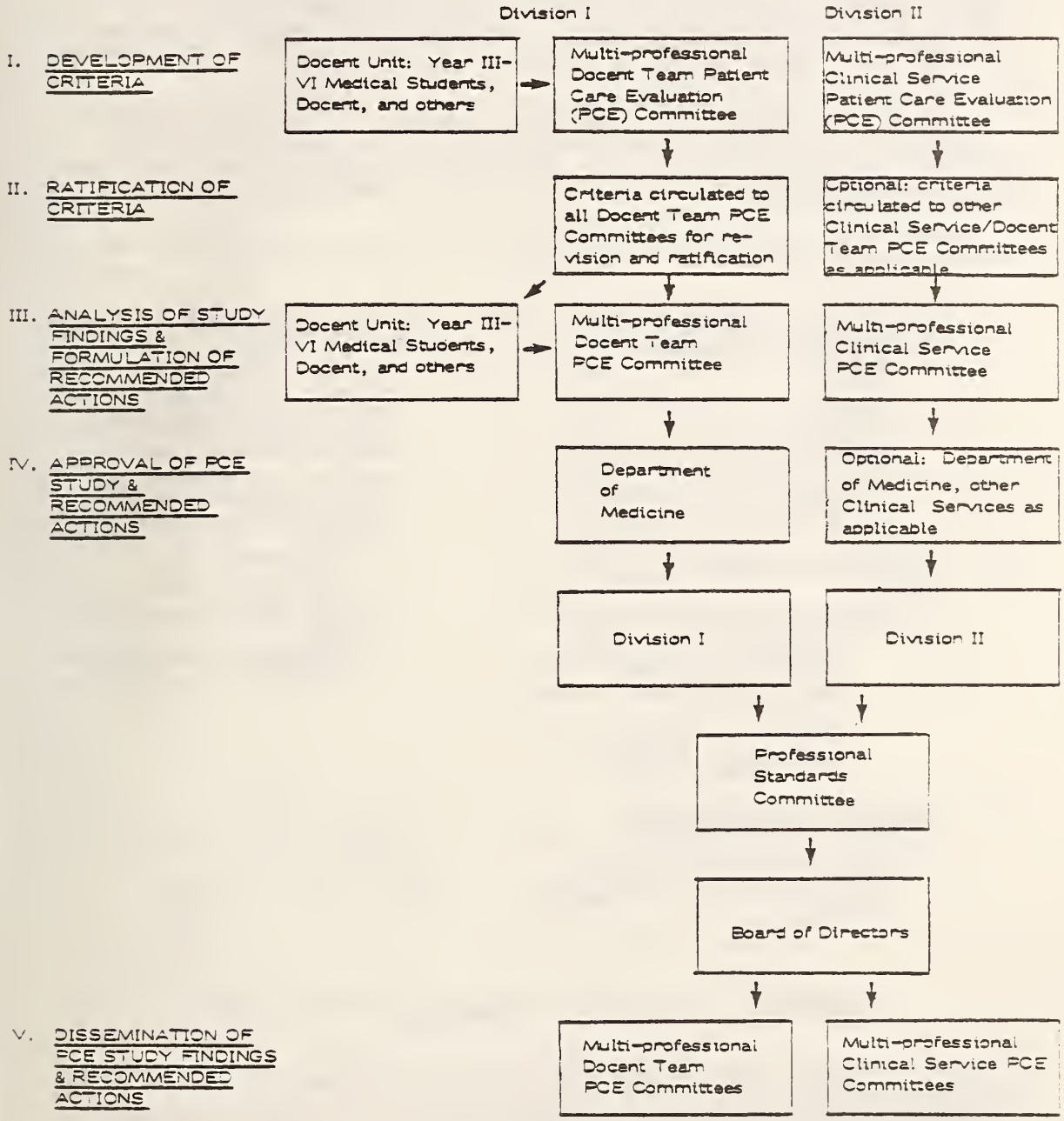
   a. share patient care evaluation plans, activities, and progress among teams, services, and sites of care;

   b. contribute to a regular report on the status of TMC - mortality, morbidity, utilization of services, costs, etc.

Approved by Joint Professional Conference Committee, September, 1976

SCHEMA FOR REPORTING AND CONDUCTING PATIENT CARE EVALUATION (PCE) STUDIES

Truman Medical Center - University of Missouri-Kansas City School of Medicine
Quality Assurance Program


Division I
Division II
I. DEVELOPMENT OF CRITERIA
Docent Unit: Year III-VI Medical Students, Docent, and others
Multi-professional Docent Team Patient Care Evaluation (PCE) Committee
Multi-professional Clinical Service Patient Care Evaluation (PCE) Committee
II. RATIFICATION OF CRITERIA
Criteria circulated to all Docent Team PCE Committees for revision and ratification
Optional: criteria circulated to other Clinical Service/Docent Team PCE Committees as applicable
III. ANALYSIS OF STUDY FINDINGS & FORMULATION OF RECOMMENDED ACTIONS
Docent Unit: Year III-VI Medical Students, Docent, and others
Multi-professional Docent Team PCE Committee
Multi-professional Clinical Service PCE Committee
IV. APPROVAL OF PCE STUDY & RECOMMENDED ACTIONS
Department of Medicine
Optional: Department of Medicine, other Clinical Services as applicable
Division I
Division II
Professional Standards Committee
Board of Directors
V. DISSEMINATION OF PCE STUDY FINDINGS & RECOMMENDED ACTIONS
Multi-professional Docent Team PCE Committees
Multi-professional Clinical Service PCE Committees

QAP Advisory Com 10/77

DECREASED HEMOGLOBIN

AUDIT CRITERIA AND CLINICAL GUIDELINE

DEPARTMENT OF MEDICINE - TRUMAN MEDICAL CENTER WEST

The following criteria were used for a Department of Medicine audit on records from June - July, 1977. The Department of Medicine has recommended that copies of the criteria be posted in all inpatient and outpatient Medicine Units with copies available to be placed in the appropriate records by members of the Docent Teams. The placement of the criteria in the records will serve as a reminder of the recommended clinical guideline. It will also serve to remind each clinician that the record may be audited on the basis of the criteria.

The critique that you make of the criteria as you are caring for each patient will result in more realistic patient care standards. If you have any recommendations for revisions, please inform the ART or Dena Strum Klein, Quality Assurance Program Advisory Committee (UMKC School of Medicine, Room MS-425, Ext. 526). All recommendations will be directed to the Docent Team Patient Care Evaluation Committees.

If your care is in exception to a criterion, please note in the progress note the reason it is not applicable to your patient.

I. DEFINITION OF PATIENT POPULATION WITH DECREASED HEMOGLOBIN:

- A. Hemoglobin <13 gms X 2 for males
- B. Hemoglobin <11 gms X 2 for females
  (Exception: MCV >100 X 2 or <80 X 2 &/or MCH <26 X 2 &/or 2+ description of abnormal morphology X 2 if HGB ≥13 for males or ≥11 for females)

II. DATA BASE OR PROGRESS NOTES OR SUMMARY:

- A. Determine Mechanism: Loss
  1. History of blood loss
     (Exception: patient unable to give history; family unavailable to give history)
  2. Test for occult blood
     (Exception: evidence of gross blood)

III. PROBLEM LIST & ASSESSMENT ON PROGRESS NOTES OR SUMMARY:

- A. Anemia recorded on problem list according to definition
- B. Determine etiology: attempted or formulated

IV. PLAN OR PROGRESS NOTES OR SUMMARY: Diagnostic Plan

- A. Determine morphology: evidence that blood smear was reviewed &/or interpreted
  (Exception: morphology present on laboratory report)
- B. Determine mechanism of production and destruction in addition to loss (under II. Data Base)
  1. Production: reticulocyte index
  2. Destruction: total and indirect bilirubin
     (Exception: performed at time anemia is detected)

REFERENCE: Beck, William S., Hematology, 2nd ed., 1977

Criteria developed by Red-1 Docent Unit in September, 1976.
1st Revision: 7/77 by Red-1 Docent Unit.
Criteria circulated to all Docent Team PCE Committees in 7/77 for revision/ratification.
2nd Revision: 8/77 by Red-1 Docent Unit (Red Team PCE Committee).
3rd Revision: 10/77 by Department of Medicine

Quality Assurance Program Advisory Committee 10/77

ANSWER KEY

Questionnaire on Hospital Charges to Patients

Prepared by Lyndall Eddy, R.N. and Larry Borgsdorf, Pharm.D.
with the Quality Assurance Research and Education Team*
University of Missouri-Kansas City School of Medicine

Please indicate status by marking appropriate line.

MS III _____	MS VI _____	Pharm D _____
MS IV _____	Res Yr I _____	Nurse _____
MS V _____	Res Yr II _____	Other _____

Estimate to the nearest dollar the hospital charge for each item:

Amylase 8.00
Blood gases 30.00
Bilirubin 5.00
Calcium 5.00
Creatinine 5.00
BUN 5.00
Electrolytes 10.00
Glucose 5.00
LDH 4.50
Alk. Phosphatase 5.00
Potassium only 5.00
T-4 10.00
SGOT 5.00
Uric Acid 5.00
Barbiturate blood 15.00
Salicylate blood 10.00
UCG (pregnancy Test) 5.00
VDRL 6.00
CBC 8.00
SMA-12 15.00
SMA-6 12.50
Hemoglobin only 3.00
Activated Partial Thromboplastin Time (Lab.) 5.00

_____
Urinalysis 6.00
Culture & sensitivity 17.00
Acid fast stain 8.00
Acid fast culture 22.70
Gram stain only 6.00
Pap smear 5.00
Chest x-ray (single view) 11.00
Abdomen 14.50
Upper G.I. 36.00
I.V.P. 36.00
E.K.G. 22.00
Bone marrow 38.00
Spinal tap 17.50
IPPB 8.50 per treatment
Blow bottles 7.50
MA-1 set up 30.00
MA-1 150.00 per day
E.E.G. 50.00
Shiley trach tube 30.00
Aver. cost of bed 83.00 per day

*Louise Arnold, Ph.D., Edith Mardiat, Marilyn McGuyre, Larry Miller, M.I
Jack Mulligan, M.D., Dena Strum-Klein, and Lee Willoughby, M.S.

Questionnaire on Hospital charges to Patients - Cont.

Antibody screening 5.75
Crossmatch 1-unit 10.00
Hematocrit 3.00
Platelets 5.00
Protime 5.00
RBC 3.00
Reticulocytes 5.00
Sickle Cell 5.00
Sedimentation Rate 5.00
Acetone 2.50
Chloride 5.00
Cholesterol 5.00
C02 5.00
CPK 6.00
HBD 12.00
Sodium 5.00

Estimate to the nearest dollar the charge to the patient (including dispensing charge) for each medication:

(Aldactone) Spironolactone
25 mg. tablet: 4 tablets daily for 30 days $12.80

(Aldomet) Methyldopa
250 mg. tablet: 2 tablets twice daily for 30 days $10.40

Ampicillin
250 mg. capsule: 1 capsule 4 times daily for 10 days $8.00

(Keflex) Cephalexin
250 mg. capsule: 1 capsule 4 times daily for 10 days $14.80

Prednisone
5 mg. tablet: 6 tablets daily for 30 days $5.60

(Valium) Diazepam
5 mg. tablet: 1 tablet 4 times daily for 30 days $11.60

(Dilantin) Diphenylhydantoin
100 mg. capsule: 3 capsules nightly for 30 days $3.80

(Lasix) Furosemide
40 mg. tablet: 1 tablet daily for 30 days $4.70

(Hydro-Diuril) Hydrochlorothiazide
50 mg tablet: 1 tablet daily for 30 days $3.80

Insulin NPH U-100
10 cc vial: 1 vial per month $5.30

(Synthroid) Levothyroxine
0.1 mg tablet: 1 tablet daily for 30 days $2.30

(Macrodantin) Nitrofurantoin
100 mg. capsule: 1 capsule 4 times daily for 10 days $12.00

(Orinase) Tolbutamide
500 mg. tablet: 2 tablets twice daily for 30 days $12.80

(Choledyl) Oxtriphylline
200 mg. tablet: 2 tablets 4 times daily for 30 days $14.00

(Rifadin) Rifampin
300 mg. capsule: 2 capsules daily for 30 days $69.20

(Gantrisin) Sulfisoxazole
500 mg. tablet: 2 tablets 4 times daily for 10 days $4.40

Tetracycline
250 mg. capsule: 1 capsule 4 times daily for 10 days $3.60

(Coumadin) Warfarin
5 mg. tablet: 1 tablet daily for 30 days $4.10

Gelusil M
30 cc suspension: 30 cc 6 times daily for 30 days $28.70

(Lanoxin) Digoxin
0.25 mg. tablet: 1 tablet daily for 30 days $2.30

(Tylenol) Acetaminophen
325 mg. tablet: 2 tablets 4 times daily for 30 days $4.40

Phenobarbital
100 mg. tablet: 1 tablet at bedtime for 30 days $2.00

Nitroglycerine
0.4 mg. tablet: 100 tablets/month $3.60

(Inderal) Propranolol
40 mg. tablet: 1 tablet 4 times daily for 30 days $9.20

Quinidine Sulfate
200 mg. tablet: 2 tablets 4 times daily for 30 days $4.40

(Bactrim) Trimethoprim-Sulfamethoxazole
Tablets: 1 tablet twice daily for 30 days $14.60

ANSWER SHEET

Selected Charges that
might involve a patient
with Congestive Heart Failure
R-2 Students - 12/17/76

I. Estimate to nearest dollar the hospital charge for each item:

Blood gases $30.00

Creatinine 5.00

Electrolytes 10.00

Potassium only 5.00

T-4 10.00

SGOT 5.00

CBC 8.00

SMA-12 15.00

SMA-6 12.50

Urinalysis 6.00

Chest x-ray (single view) 11.00

E.K.G. 22.00

Aver. cost of bed per day 83.00

Protime 5.00

CPK 6.00

HBD 12.00

II. Estimate to nearest dollar the charge to the patient for each medication:

(Aldactone) Spironolactone
25 mg. tablet: 4 tablets daily for 30 days 12.80

(Lasix) Furosemide
40 mg. tablet: 1 tablet daily for 30 days 4.70

(Hydro-Diuril) Hydrochlorothiazide
50 mg tablet: 1 tablet daily for 30 days 3.80

(Choledyl) Oxtriphylline
200 mg. tablet: 2 tablets 4 times daily for 30 days 14.00

(lanoxin) Digoxin
0.25 mg. tablet: 1 tablet daily for 30 days 2.30

Nitroglycerine
0.4 mg. tablet: 100 tablets/month 3.60

Quinidine Sulfate
200 mg. tablet: 2 tablets 4 times daily for 30 days 4.40

University of Missouri-Kansas City
School of Medicine

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Mohan L. Garg, Sc.D.
Warren M. Kleinberg, M.D.
Werner A. Gliebe, M.A.
Department of Community Medicine
Medical College of Ohio

Containment in Medical Education: The Medical College of Ohio Program

Increases in health care expenditures are averaging 15 percent annually. At this rate, national health expenditures will double within seven years. In 1976, we spent $120.4 billion on personal health expenditures alone (Figure 1).[1] Of this total, nearly 77 percent or $93.0 billion was generated by practicing physicians. Three cost components represented in Figure 1 (hospital care, physicians' services, and drugs) are under the direct control of physicians. Only a physician can admit to hospitals, and order procedures and prescribed drugs. Physicians in solo and group practice, therefore, carry a heavy burden of responsibility for personal health expenditures (Figure 2).* The physician has as a result been variously depicted as the "generator of costs"[2] and as the "captain of the health care team."[3]

In a recent study prepared by the National Association of Blue Shield Plans,[4] 34 factors were elaborated as sharing responsibility for high inflation in U.S. health care spending (Figure 3). Of these, 23 have been identified as within the health care system and, of these,

*We are indebted to John Williamson, M.D., for initially suggesting a three-dimensional representation of quality assurance.

Figure 1

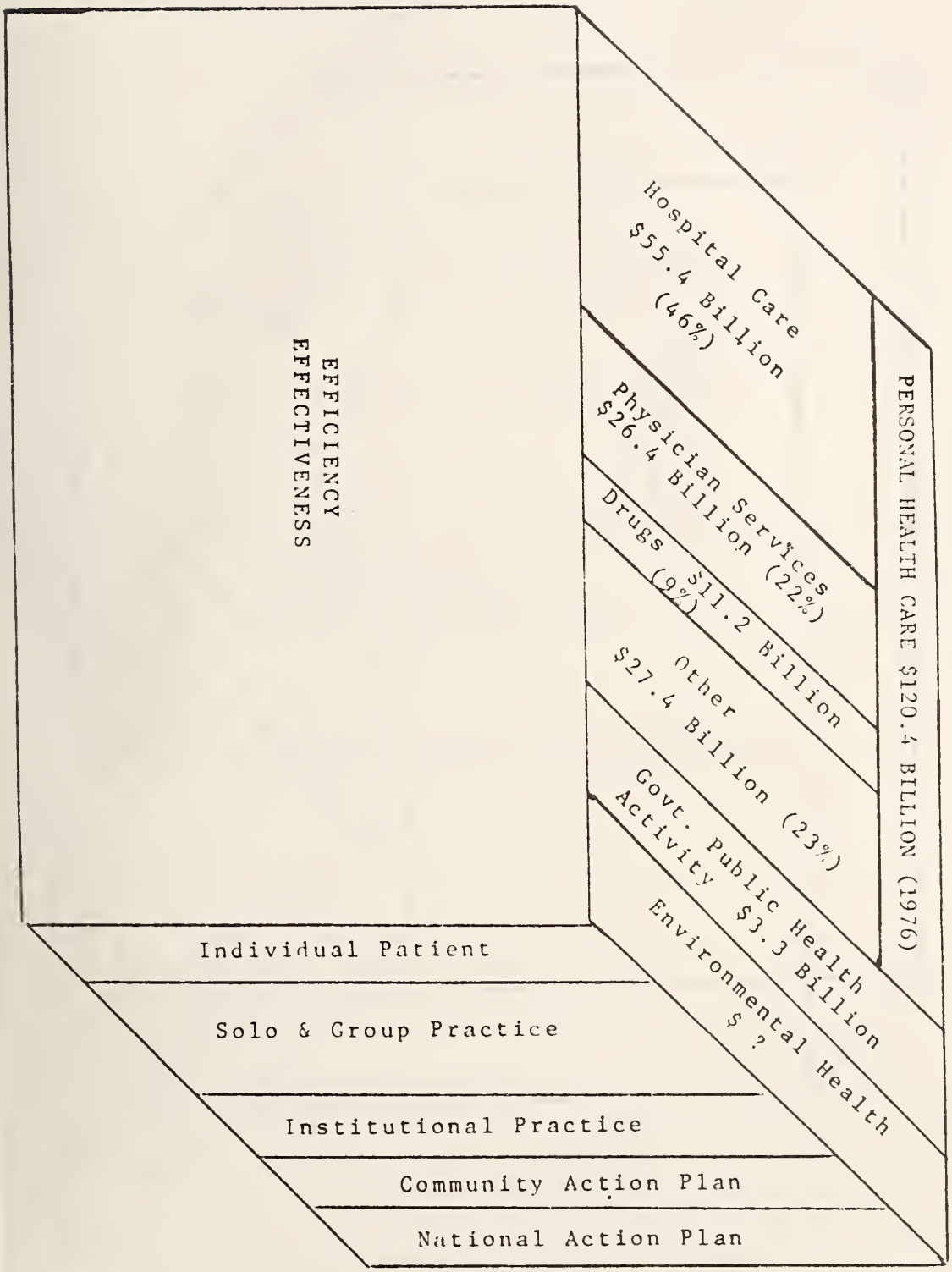
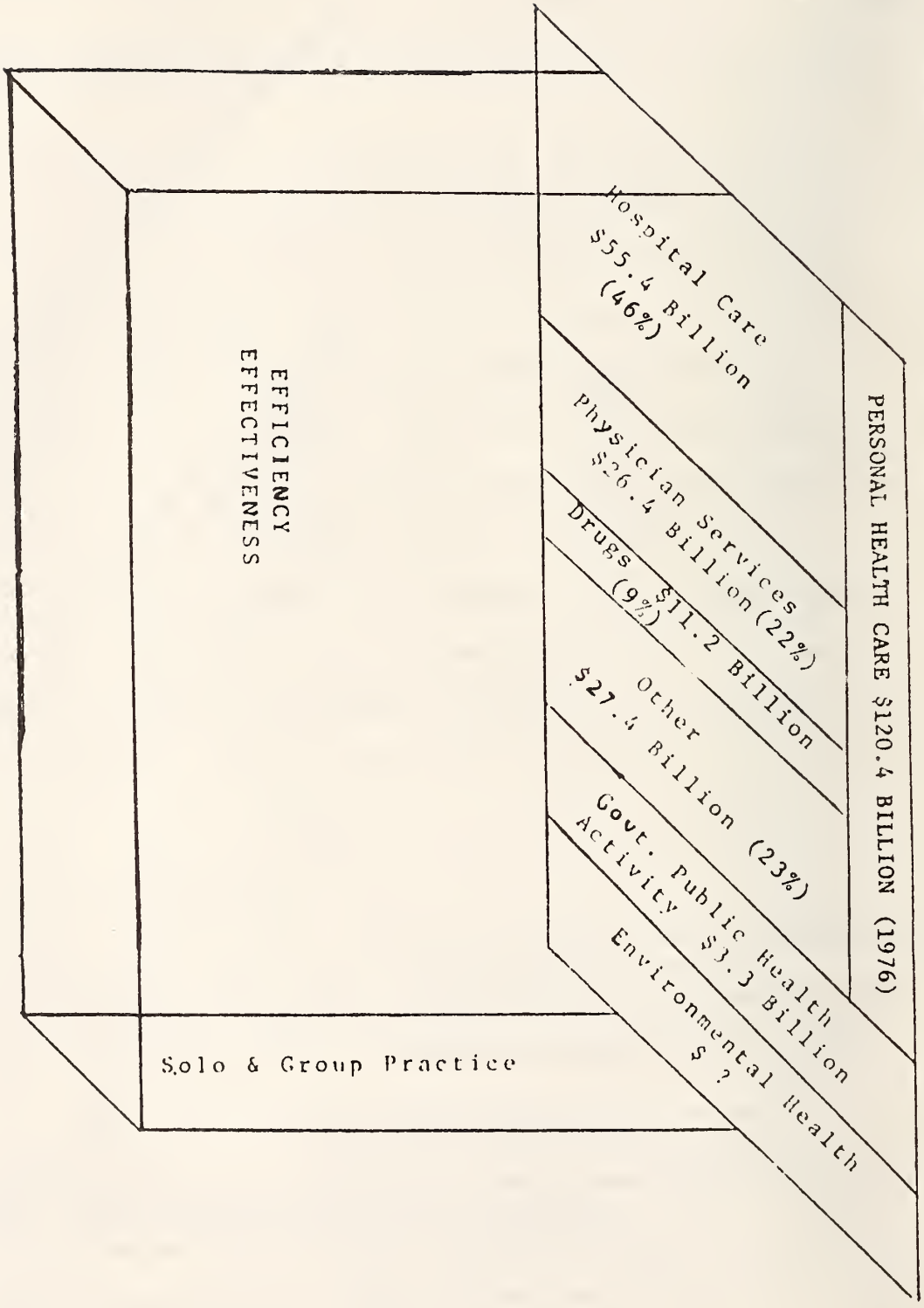

EFFICIENCY
EFFECTIVENESS
Hospital Care
$55.4 Billion
(46%)
Physician Services
$26.4 Billion (22%)
Drugs
$11.2 Billion
(9%)
Other
$27.4 Billion (23%)
Govt. Public Health
Activity
$3.3 Billion
Environmental Health
$?
PERSONAL HEALTH CARE $120.4 BILLION (1976)
Individual Patient
Solo & Group Practice
Institutional Practice
Community Action Plan
National Action Plan

Figure 2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Environmental Health
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EFFICIENCY
EFFECTIVENESS
Solo & Group Practice

Figure 3

FACTORS CONTRIBUTING TO HEALTH CARE COSTS

I. Factors Outside the Health Care System (5)

II. Government Factors (8)

III. Factors Within Health Care System (23)

a) Directly Attributable to Physicians (11)
b) Indirectly Attributable to Physicians (12)

SOURCE: Professional Relations Manual, 1977. National Blue Shield Association, Chicago.

11 are directly attributable to physicians (Figure 4). The impact of these factors on health care expenditures can be illustrated by a few examples. The number of available diagnostic tests has increased enormously; 25 years ago fewer than 100 laboratory tests were available as compared to more than 600 in 1975.[5] Radiological services have also increased, costing an estimated $4.7 billion in 1975.[6] The average number of diagnostic tests per patient has also increased substantially. For example, for myocardial infarction, 1.3 X-rays were taken in 1965 as compared to 6.3 in 1971.[7] The number of EKG's for the same diagnosis increased from an average of 5.4 in 1964 to 9.0 in 1971, an increase of 67 percent.[7]

In recent years, physicians' knowledge of medical costs has been examined by several researchers.[8,9] All the studies showed that practicing physicians are generally unaware of the cost of diagnostic tests and procedures they use. Physicians cannot play a role in cost-containment until they are made aware of the costs of medical care they themselves generate. Medical education curricula are therefore needed to foster awareness and a critical orientation through cost-benefit analyses of their actions. This is essential since, at this point in time, the physician alone can determine with any validity the cost-benefit of actions he initiates for his patients. Toward the end of changing physicians' behavior in their future practice, a curriculum has been elaborated around these quality and cost issues.

Figure 4

III a. Factors Directly Attributable to Physicians

i) New Medical Technology
ii) Drugs
iii) Number of Procedures Performed: Lab and X-Rays
iv) Conflict of Interest: Physicians Owning Expensive Equipment
v) Specialization of Medical Education
vi) Increase in Number of Physicians in Relation to Population
vii) Physician Training Emphasizing "Technological Imperative" rather than Resources
viii) Physicians Unaware of Cost Implications of Their Decisions
ix) Defensive Medical Practice
x) Reimbursement Mechanism for Hospital Radiologists and Pathologists
xi) Trends Not Only Saving Life but to Improve It

SOURCE: Professional Relations Manual, 1977. National Blue Shield Association, Chicago.

A Quality Assurance/Cost Containment Curriculum

The Medical College of Ohio at Toledo has initiated a curriculum in quality assurance and cost-containment for undergraduate medical students with the following goals:

1) To involve the student and help develop the educational process aimed at the elimination of discrepancies in health-care delivery.
2) To familiarize the students with the chart audit mechanisms, an established component of quality assurance.
3) To familiarize the student with recent national trends in quality-assurance legislation.
4) To familiarize the student with the cost of medical care and the role of the physician and health-care system in generating and containing costs.
5) To familiarize the student with the legal implications of the various national quality-assurance programs and the protection of his and the patient's rights.

The quality assurance program is most rigorously implemented during the four week clinical clerkship in Community Medicine and Primary Care. The clerkship is divided into two parts: (1) seminars on Fridays of each week, and (2) clinical experience in the primary care of pediatric, internal medicine, and family practice patients

for the remaining four days of the week. Initially, students are given an orientation to the clerkship objectives including a topical outline of the seminars on quality assurance and cost-containment. Standard evaluative levels for the health-care system, i.e., structure, process and outcome, along with their relationship to evaluation techniques, are explained. In addition, assignments for chart audit and the three seminar sessions to be held during the four-week rotation are outlined to the students.

Each student is expected to audit one chart of a patient with a selected problem for the month. The detailed instructions for this are shown in Figure 5. Additionally, he is provided a charge book which lists all diagnostic tests and procedures performed in the hospital along with their charges. The audit report and the cost analysis are due on the last Friday of the rotation.

Seminar I: Second Friday

I. Each student reports on 1 of the topics below:

   a. Discuss the strengths and limitations of the different methods of quality assessment.

   b. Define the concept of tracer disease with its minimum care plan, the level of analysis for which it appears appropriate and its strengths and limitations.

10

Figure 5

INSTRUCTIONS FOR CHART REVIEW

The student will audit the record of one patient with hypertension. The audit will analyze the record in 4 areas:

1. Organization of the record: 1) Clear and logical; problem or complaint oriented. 2) Information easily retrievable. 3) Complete and up-to-date.

2. Process:

   a. Data base and workup optimal (using phase II guidelines or Task Force on Hypertension Criteria, J.A.M.A., Jan., 1977).

   b. Each component of the data base: 1) Thorough 2) Reliable 3) Analytically logical 4) Efficient.

3. Outcome: a) Determinants clear in assessment and plans. b) Progress notes up-to-date and pertinent. c) Patient's compliance and satisfaction accounted for.

4. Cost:

   a. Total cost of laboratory, x-rays, and other tests from initial evaluation to present.

   b. Cost if minimal care guidelines followed.

   c. Discrepancies
      1) Define
      2) Positive, negative, or no effect on patient management.

   d. Justification for hospitalization

Each student will prepare a report discussing all four above areas, and the parameters described for each, for the record he reviewed. One typewritten page should follow, addressing the following:

1. Are discrepancies picked up by the chart audit and what accounts for them

2. If there were cost differences, were they significant and could savings have been made without jeopardizing care?

3. Can chart audit be educational without being punitive?

4. What method of quality assurance would you prefer and why? (Refer to reference list).

5. Can peer review through chart audit contain costs, save a physician time in his practice, and justify the time (and money) spent on auditing?

6. What are some other uses of chart audit besides feedback on individual patient care to physicians?

c. Define the concept of staging for relating process to outcome.

d. Discuss whether quality of care can be improved using the above approaches.

e. Compare the findings of Nobrega, et al.[12] with those of Brook and Appel.[13]

II. General Discussion of Alternative Existing Mechanisms of Quality Control.

a. Performance Evaluation Procedures for Auditing and Improving Patient Care (PEP) program of the Joint Commission on Hospital Accreditation.

b. Mandatory Continuing Medical Education for Licensure.

c. Specialty recertification.

Seminar II: Third Friday

I. Discuss cost control

a. Through PSRO.

b. Through government regulation of health care cost, e.g., President Carter's recommendation of 9 percent ceiling on hospital cost increase.

c. Through third party (Blue Cross, Blue Shield, etc.) payers.

d. Through resource allocation and the idea of the medical commons.[14]

II. Discuss PSRO Law as an:

a. Educational tool.

b. A potentially punitive device.

Seminar III: Fourth Friday

I. Each student reviews the chart of a hypertensive patient using implicit criteria for audit and reports in the form provided (Figure 6 and 7).

II. Discuss the chart audit process.

III. Discuss hypertension.

a. Tracer

b. Staging

c. Minimum care criteria

d. Evaluation from a medical record

e. Protocols vs. compliance vs. outcome

f. PSRO criteria

g. Hospitalization vs. outpatient workup

The clerkship program has been refined to the point where students are now involved in evaluating the total patient care process, not only one component of the care. Furthermore, they are evaluating the quality of care as well as making definitive judgments about the cost of that care in terms of utilization of inpatient services.

Day of Stay	Subjective Findings	Objective Findings	ASSESSMENT
			The following questions need to be answered in order to assess the progress of patient for each day for which subjective and objective findings have been specified. 1) What is happening to the patient? 2) What is the problem? 3) What is the likely cause(s)? 4) Is enough information available to delineate the problem and judge the patient's course? 5) What, if any, other information or tests do you need? 6) Have too many tests been ordered? If yes, specify. 7) Could less expensive and/or more reliable tests have been ordered? If yes, specify.

Figure 6

Figure 7

TEST		ADMISSION				DAY 1				DAY 2...
		RESULT OF TEST IF ORDERED	IMPORTANCE			RESULT OF TEST IF ORDERED	IMPORTANCE			
RADIOLOGY	CHARGES		UN[@]	UNN[@]	NN[@]		UN[@]	UNN[@]	NN[@]	
Chest	$ 20.00					*				
Skull	31.00					**				
Mastoids	25.00									
Sinuses	21.00									
Brain Scan	75.00					ordered to be done next week				
Adb. Echogram	25.00									
Ga. Body Scan	100.00									
Skin Test PPD	2.00					placed on forearm				
EEG	50.00									
Total # of Tests On A Given Day										
Total Charge For A Given Day										
Cumulative # Of Tests to the Day										
Cumulative Cost To The Day										

*Normal lungs but heart slightly enlarged.

**"Multiple projections showing irregular reticular-sclerotic pattern noticed in both parietal bones compatible with hair-on-end pattern, most commonly found in congenital hemolytic anemia, but also found uncommonly in congenital heart disease, hemangioma, which should be considered in the differential diagnosis."

[@]UN = Useful and Necessary.
UNN = Useful but Not Necessary.
NN = Not Useful and Not Necessary.

Some Results of a Curriculum Program (1976-77)

Student participation in the cost-containment curriculum is well illustrated by the program undertaken during 1976-77. As part of the program, each student was asked to conduct retrospective cost-evaluations of four hospital patients originally seen by his own peers (medical students) during their rotations in Medicine and Pediatrics. The cost assessment was limited to the first day's diagnostic work-up. The charge analysis form is shown in Figure 8. The summary results of the students' assessments are shown in Figure 9. The figures show that an average of 11 tests at a cost of $154 were ordered on the day of admission. Comparison of total number of tests actually ordered with those felt to be the minimum necessary shows an average difference of two tests per patient with a mean charge difference of $24 per patient for the day of admission alone. During 1974, according to National Center for Health Statistics estimates, nearly 33 million patients were discharged from U.S. hospitals. Were the two test difference uniformly applicable, the country would realize a savings of $792 million (33 million x $24). Clearly, some savings could be realized with some critical attitudes toward laboratory use, as well as in other areas. In addition, the students found that four tests could have been done before admission and two could have been delayed for each patient, suggesting that Pre-Admission testing as a health insurance policy could be more heavily utilized for hospitalized patients.

CHARGE ANALYSIS: FIRST DAY'S ORDERS

Total Number of Tests Ordered		A_2 Charges for These Tests	
Number of Minimum Necessary Tests Pertinent to the Problems of the Patient		B_2 Charges for Minimum Necessary Tests (Pertinent to the Problems of Patient)	
Number of Tests Which Could Have Been Delayed		C_2 Charges for Those Which Could Have Been Delayed	
How Many Tests Could Have Been Perforded Prior to This Elective Admission?		D_2 Charges for Tests That Could Have Been Performed Prior to This Elective Admission	

Figure 8

Figure 9

Total and Average Tests Ordered,
Tests Judged Minimum Necessary,
Tests That Could Be Done Before Admission and/or Postponed,
Plus Associated Charges

	Total	Average Per Patient
Number of Patients Evaluated	262	-
All Tests Ordered	2,943	11
Minimum Necessary	2,440	9
Could be Done Before Admission	979	4
Could Be Postponed	444	2
Charges for All Tests Ordered ($)	40,272	154
Minimum Necessary	34,150	130
Could Be Done Before Admission	10,623	41
Could Be Postponed	4,402	17

In the audit process described here, the students were put into a situation of criticizing the judgments of their peers. They learned not from a simulated patient and fictitious practitioner, but from actual cases and their own classmates. Such reviews would permit them to take the standards they were using and apply them to their own experiences in their later practices.

Conclusion

The effects of policies designed to increase physician manpower are now manifesting themselves. The 1976 medical graduating class was 70 percent larger than that of 1968. From 1976 to 1990, the number of active physicians will increase from 367,000 to nearly 587,000.[16] One physician generates an average of $250,000 to $300,000 in aggregate annual costs to the health care system, beyond his own fees. Based on these estimates, the additional physicians will add not only their incomes of $15 to $20 billion to health expenditures, but a sum equal to four or five times that amount. Further, today's student is trained in an ever expanding "technological emporium."[17] Under such circumstances, it is urgent that medical students be educated in cost control with minimal further delay.

The application of a cost control program at the undergraduate medical school level, before students form a definitive conception of treatment behavior, may contribute to more effective cost-conscious behavior in later practice. Yet, within the structure of medical

education very few efforts are underway to encourage cautious use of hospital procedures. Through such programs, medical schools can fulfill their obligations to define "acceptable standards for the utilization of tests and procedures."[18] Medical education can then help control the costs generated by future practicing physicians and help protect the "medical commons."[14]

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David A. Bennahum, M.D.
Director of Medical Education
Presbyterian Hospital Center
Albuquerque, New Mexico

Chairman, Committee on Continuing
Medical Education
New Mexico Medical Society

The Relation of Continuing Medical Education to Cost Containment

Each of us, whether consumer, administrator or physician, has become aware of the rising cost of health care. Yet in the past decade of rising costs there has also been a six to sevenfold increase in our Gross National Product, from 263 billion dollars to several trillion dollars. The discrepancy between the tenfold increase in health care expenditures and the six to sevenfold growth of the GNP, is the source of our shared anxiety. The actual figures are 12 billion to 118 billion which is 8 percent of our Gross National Product. This sum is divided, as you know, better than I, in a certain ratio between physicians, nursing homes, hospitals and other individuals and institutions. Some costs have risen more markedly than others, yet for complex reasons. A critical issue has been that of physician income. I think that decisions are made, at times consciously or unconsciously, based on the income that will be generated. I can give you a personal example. When I was in full time private practice my colleague and I were taking and interpreting our own X-rays in our office, for which the patient was charged. After about a month, I began to realize how many times I

had not seen something on an X-ray. I had to admit to myself that my interpretation of the X-ray was less adequate than that of a Radiologist. We stopped taking our own X-rays. This was a significant loss in income for our practices. On the other hand, we continued to do cardiograms. Why? Because one may not be able to read a cardiogram perfectly, but one will know that there is an arrthymia. Just as in hearing music, you are going to hear the false notes. You will see that the rhythm is abnormal and then you can request a consultation. So it is probably appropriate for the average physician to take cardiograms because he can usually identify the irregularity. He cannot, however, know that he did not see a tumor on an X-ray.

In most States, it is legal and possible for a physician to get laboratory costs at the wholesale price. If a blood count costs $10.00 the physician can get that for $6.00 and sell it back to the patient at the retail price. He can bill, in other words, for $10.00. He then takes the risk, however, of not collecting. The practice of the physician's billing for laboratory tests drawn but not performed in his office yielded for me in my very first year of practice considerable income. When I began to seriously think about this, I had to admit to myself that there was something wrong about the practice. Now, there is no way for my patients to get laboratory at wholesale. You can get a suit of clothes wholesale, but you cannot get a CBC wholesale. As it seemed improper at best, we stopped that practice as well. I have two secretaries and a part-time clerical secretary just to get the office

work done because the overhead, even in a well run office, is about 50 percent of a practice. Now I don't know how to resolve such problems, but I am letting you know that many of us do think about them and can respond responsibly to them. Yet a proper response may decrease a physician's income, clear his conscious, but not change the cost to the patient or to the society one bit. I think, however, that if the physician has a higher income because he receives a return on the tests that he orders, that it becomes very difficult for even the most ethical person to make a completely honest decision each time.

Now let's look at the breakdown of who is paying for what. It is very interesting that, whereas in 1950 about 34 percent was direct payment, and third parties were paying 65 percent, now the latter are paying 90 percent of the bill. The public, at the same time, has also increased its gross payments because obviously this bill is now much larger. The patient's bill is usually higher than that which the insurance company will pay. Now how do our costs compare with another large country of about equivalent population. Newsweek Magazine had an interesting table comparing medical manpower and costs in the Soviet Union and in the United States. They have more doctors, although their average doctor is less well trained. They have an enormous number of paramedics, yet they have fewer nurses. They have many more hospital beds than would seem warranted for the difference in population; but, they spend much less. Now these are obviously figures which are very

hard to evaluate. Yet the difference between their total cost and ours is astounding. Associated with this data is a significantly higher infant mortality than we have and a life expectancy which is significantly less for men than ours, but about the same for women. Thus, at less cost, they have more physicians and paramedics, fewer nurses and more hospital beds. Qualitatively, their infants have a higher mortality as do adult males, but their adult females live as long as do American women.

Let us now discuss what is happening in my community in New Mexico. In the last 20 years, Albuquerque, which grew 14 percent in the last year, has become one of the fastest growing cities in the country. We have several extremely modern medical centers. As an example, these are the units and new procedures that were added to the hospital at which I work in the past decade or so: a coronary care unit, an intensive care unit, a large dialysis unit, a host of different procedures such as ultra-sound scanning, cardiac surgery, hip replacement, a very good ambulance company which has really trained professionals on the ambulances, micro-surgery, all kinds of monitoring procedures and many other innovations.

Now, I just want to stop for a minute and remind you that we who are physicians and you who are administrators should have the same goal, that of sound patient care. To do this, we must know why people

get sick and why they die. The chances of dying in the U.S. if you are between 20 and 30 years old, and are white, are 1,810 out of one hundred thousand. If you happen to be black, you have a four times greater chance of dying in this ten year period. Now as people age this discrepency increases. You will see that all along the line black males die more frequently than white males, as do black females when compared to white females. Furthermore, black females do worse than white males. This in a sense is almost as though to say poor people have worse health than middle class people. All of us have to keep this reality in mind. I should point out that New Mexico is second from the bottom in income in the U.S. It is a very very poor State with a lot of very poor people, which presents particular problems for us. On the other hand, it is also very much a mixed culture somewhat free of the horrendous problem of antagonism that other centers have in America. Perhaps not free, but with a different kind of perspective. Now, what do people die of? What are we really talking about in costs? They die of heart disease, cancer of the lung, strokes, auto accidents, cirrhosis of the liver (which is largely due to alcoholism), suicide, emphysema, pneumonia, and cancer of the colon and breast. In New Mexico, accidents are the second leading cause of death because of the combination of the pick-up truck, the alcoholism and the high speeds on the highways. If you really want to confront our problems, they have to be seen in this perspective. For females the specific causes of death are slightly different. Most of these diseases are therefore social or environmental diseases. Drinking, smoking, not exercising, eating

high calorie diets (hamburgers inside large buns) and not wearing your seat belt. Most of those diseases are preventable. These are socially engendered diseases. Yet the individual physician treats patients one at a time. He is not a social engineer nor is he expected to be one. In order to be a good physician, he and society must have an ideal. Sigerist, in the introduction to his History of Medicine, points out that the goal of a physician historically, is the promotion of health care, the prevention of disease, the restoration of health, and rehabilitation. I have reinterpreted that for myself, my students and my patients thus: how to teach the patient to stay well, to recover from an illness, to cope with a chronic illness, and when necessary to help a person to accept death. (Certainly not by being put into the last bed in the room at the end of the corridor.) The World Health has a single definition, which is that "health is the total well being, physical, mental and social of the individual." Now we, as students, are sent into medical school. We are asked to have the highest possible memory capacity of any profession so that we can pass organic chemistry and a few other chemistries, and then in medical school, we amass an enormous vocabulary of facts with little philosophical, humanitarian, or sociological information and then you ask us to come out on the other side and be able to look at each patient with a truly humanistic, economic and social perspective. Now fortunately, most of us being human, after about 20 years of this process, we can still re-coup, in our 50's and 60's or hope we can re-coup and deal with it from a more mature perspective. But our training is to seek

out pathology, to seek out "pathos," we are not trained to promote health. We are physicians; we are supposed to find disease and to root it out. That is what we are trained to do. Yet, the society is now asking us to do something else: to teach patients how to stay well, to get them to go jogging, to make sure that we signed all of our charts, etc., etc., etc. We simply are not trained to think in these other ways. So I think that right from the start, we have an education that may not meet the current need.

Western medicine is hippocratic. We are taught that the basic principle of medicine is to give no deadly medicine, to do no harm. What we are rarely taught is that the fundamental principle is physician, heal thyself. If the physician is not sound in mind and body, if he does not have necessary knowledge, if he does not visit the library, or if he is getting divorced, taking narcotics, or losing money in the stock market, he is not going to be sound in mind and may give deadly medicine, may do harm. In addition, in every clinical situation in which one practices medicine, there is usually a series of minor principles that are by-products of the aforementioned. For example, an error of commission is more serious than an error of omission. There are also relative and absolute indications and contraindications for diagnostic maneuvers and therapy. One does not use Heparin in the presence of an ulcer. If we are to educate and re-educate physicians, the above principles must be taken into account. Yet, there is not a

lot of data about what you can change. You can teach a physician to give up dangerous practices, errors of commission, but it is much more difficult to alter habits of omission. It is extremely hard, to teach a physician to start doing something which he does not believe is going to be effective. Now one of the reasons for your skyrocketing costs is that we can do many complex surgical procedures in relative safety. We can open the heart, put three new veins in place of the three coronary arteries, give the patient 20 units of blood, and the patient walks out of the hospital. We have little data to show that anything has changed except that his pain is lessened. We can do hysterectomies very easily with almost no mortality and cesareans with little fetal loss. Thus, we can perform operations which might have been errors of commission a generation ago. Now this capacity to do things safely has changed medicine but I think philosophically it may be violating some underlying principles of the way we should be practicing.

Let us now turn to the cost of medical care. Lyle has published several papers in the Annals of Internal Medicine on costs generated by internists in practice. He had a group practice of eight physicians who computerized their records. He then compared these physicians. Some physicians gave return appointments as often as 64 percent of the time; some as little as 33 percent of the time. Several physicians admitted to the hospital as much as 5 percent of the outpatients seen while several physicians admitted to the hospital as few as 0.3 percent

of those seen in the office. These decisions were based on differences in viewpoint, yet each was a well trained internist. There is also a wide variance on the cost that one physician will generate from a hospitalized patient as compared to another physician. Now granted this is not a huge sample, but there is a real problem dealing with this. For example, one physician will order 30 percent more laboratory tests on each visit while another physician will order 15 percent less laboratory tests. Yet, there is really very little data as to differences in patient outcomes between two such physicians. In Albuquerque, in our HMO, we cannot demonstrate that the physician who orders less laboratory work, or cheaper medications is less effective in healing than the physician who orders more laboratory tests and more expensive drugs. This difference in style may be harder than anything else to change. Are all these measures of behavior consistant? There are differences but the one that had a high return to the office had a low hospital admission rate, so it may be that he is the one who takes better and cheaper care of his patients. Thus he had a 63 percent re-appointment rate, but he had only a 5 percent admission to hospital. Some physicians can get a patient out of the hospital in eight days, some physicians need thirty-three days. Of course, one may have a more geriatric practice within a practice of Internal Medicine. There are differences therefore in practice patterns. I think that the differences between a gastrointerologist and endocrinologist is not only that of information but also that of viewpoint. They have a different style,

different information. I, as a rheumatologist, almost automatically order a sedimentation rate. An endocrinologist may almost reflexively order a thyroid test. Thus, these are stylistic decisions, decisions of mode and fashion and habit. If you look at the history of medicine, it has always been somewhat like that. For example, if you look at the book Controversies in Internal Medicine, in the first edition there were some thirty controversies. In the second edition which came out in 1974, they reviewed the thirty controversies of the first edition, such as whether you do cholecystectomies electively or whether you should anticoagulate for heart attacks, and so forth. Only a few controversies have been resolved. Some who were advocates of a position ceased publication or other scholars have turned to other kinds of research. Few controversies in that book had been resolved between 1967 and 1974. Therefore, the concept of fashions and of style is important to an understanding of medical practice.

You have a hard time finding a physician who really doesn't know that chloramphenicol or phenylbutazone are dangerous drugs or that a high potassium level can give you a cardiac arrthymia. It is not so much that you have to repeatedly teach physicians that high potassium is dangerous; that is not the issue. What you have to teach physicians is that they must go and look to see if the potassium has gone up. It is not a lack of information that must be corrected; it is often an inability to use the information appropriately. For example, a physician has had a

patient on a drug for thirty-six weeks. He has ordered serum potassium levels as he was taught to do in medical school. A normal potassium should not be above five and here it is 5.7, 6.7, 6.3, 5.9, all dangerous for this patient; yet, he never responded to the information. We have just purchased a $300,000 computer for our hospital. The physician receives laboratory information back within minutes via teleprinters on the nursing floors. However, the information is printed onto a complex sheet of paper that is difficult to interpret. It has too much information on it. Before the computer, we would receive laboratory slips of different colors with one piece of information on each slip. The new way many find very hard to use. So technology is giving us more information more rapidly but may make it much harder to use. Now, there is another way that you can get doctors to look at things, to catch their attention. Here is a study of abnormal urine examinations. The authors noticed that no one was paying attention to the laboratory slips, so they took a piece of florescent tape, green or yellow, and they put it on the laboratory report to alert the physicians. It proved effective. The abnormal number passed unnoticed, but the florescent tape caught their attention and elicited a response.

Another example is this one of two hospitals A and B. Their Tissue Committee looked at the percentage of post-appendectomy specimens which were normal. Most centers expect less than 20 percent of appendectomy specimens to be normal. In other words, you have to have a certain number of normal appendices in order not to miss the ones that

are abnormal because if you are too careful, there are going to be a few you have missed and they will rupture. That is serious. So it is acceptable in most audit criteria to have some normals. Hospital A had 27 percent and they were able to reduce it to 17 percent and finally to 14 percent. Hospital B got worse. Now what was the difference between Hospital A and B? When they really looked at the surgeons working at Hospital A, they found that just two surgeons were responsible for most of the abnormals. So, sometimes something may change not because of the practice pattern of all the physicians, but because of 1 or 2 individuals. Now the converse can also be true. Here is the example of an open heart surgery program in a hospital from July 1976 to June 1977. An excellent cardiac surgeon introduced cardiac surgery to the hospital and did a great deal of good for a great many patients. But he was a slow surgeon. Thus, more blood was used when he was head of the surgery team. Then, two additional surgeons joined his team who were very fast and they were thus able to decrease the amount of blood utilized. At the same time, a new pathologist introduced a new rapid clotting test which is done in seconds in the operating room. Therefore, when cardiac surgery is now done, a technician stays in the room and is constantly measuring the clotting of the blood. This costs more money but it reduces the amount of blood the patient gets. So we have two very different factors affecting physician performance and costs. They both reduce and raise the costs.

Now how else can you reduce costs? First you must look at style; style is a factor. Then you can look at new technology which can increase or decrease your costs. Lastly, you can look at old technology. Now our Pediatrics Committee has recommended no routine chest X-rays for anyone less than 19 years of age. This was based on the realization that in the absence of symptoms, the yield is small. The yield from the PA straight film, under the age of 19 or 20, is so small that it is not worth doing a routine X-ray. Now if the child is coughing or the child has chest pain, then you should do the X-ray. In an annual physical, the yield on a lateral is in the same class until 39 years of age according to recent data. So our center is no longer doing chest X-rays on children on a routine basis and we are urging physicians to consider only a PA up to the age of 39 on routine screening. Now this is a lot of money that is lost to our hospital. The money that may run the social services or the library. This loss of income to the hospital is a very serious loss. Yet, this is an error of commission; we are harming patients and we have elected to stop. The pediatricians are a small cohesive group who run their meetings well and probably have more compliance from each other than do most of our sections. The family practitioners have a lot of pediatric practice, but were not in on this decision and I am not sure they will agree with it.

Now let us look at the cost of drugs. This is the computer print-out from our HMO of the most commonly used drugs. You will notice that this was for the period January 1977 to October 1977. As examples, a

commonly used drug such as Valium 5 mg. is not considered a very effective drug. Tylenol with codeine is again not a very effective drug. The drugs we give out are the drugs that won't do much harm, so that we are not defying the principle of do no harm. I think in a lot of our treatment of self-limited ailments, we have to do that. In order to persuade patients to recover, we very often have to form a contract where we will do this for you. For example, I will give you tetracycline, but no I will not give you penicillin. In return the patient will recover. It is a very complicated interaction. What we are doing is giving minor drugs so that we do not have to give the patient a major drug. We talk them into Tylenol with codeine instead of Percodan. But we cannot give them nothing. The patient generates some of this and the doctor generates some. It is a complicated interaction.

Going down the list, notice Dilantin, a very effective drug; Aldomet also effective, but it gives you impotence and depression; again Ornade and then Librium, probably no more effective than Valium. At least half of this list is really not going to change anything in the patient's life, but it is the way we practice medicine. It is the way our patients expect to recover. It is how they have been taught to recover. So we have to somehow change that. Now one thing about all those drugs is that when you prescribe them under proprietary names the cost goes up. So the HMO sent this list of generic names for common drugs to every physician. I received it and it is lying on my desk all the time.

A point I often ask myself is why can't we have clever generic names that are easy to remember. If you use propoxephene instead of Darvon, you can save 70 percent for the HMO. The HMO actually asked ten physicians to write generically for erthromycin, tetracycline and ampicillin. They then went out to the pharmacies to find out what happened. The pharmacist using the very modern, wonderful, progressive, generic substitution law recently introduced in New Mexico, used the substitute trade names for generics. Just incredible. So that the patient instead of paying the generic costs was paying a proprietary cost. For example, the generic costs for one drug was $7.00. The physician actually wrote ampicillan on the prescription pad. The patient, however, was given a trade product for $18.75, instead of a generic product of $7.00. So there is another weak link in the chain. You teach the doctors to do it right and then you find out that there is some other link that needs correction. What happened as a consequence, however, was that each pharmacist was brought into conference, was shown the amount of overall income they were deriving from the HMO and was told that if they did not change their practice, they would be removed from the HMO list. We are now doing the same thing with the physicians. If a physician's practice is financially inappropriate, he will be asked to leave the HMO. Thus, we have to educate the pharmacists as well. I have now taken to writing on my prescriptions, "please supply generic at lowest possible cost." I have asked my patients to please come back and tell me what the cost of the product was. I do not know if that will be effective. I am wondering what the pharmacist will do when they read that.

Now let's look and see whether training improves the capacity to take care of patients. Here is the difference between what happens when you have a urinalysis in a teaching hospital as compared to a non-teaching hospital. If you are in a non-teaching medical service, 40 percent of physicians confronted with an abnormal urinalysis will repeat the urinalysis. The university staff, on the other hand, will be more likely to order a culture. To repeat the analysis is probably a waste of money. It is probably wiser and cheaper to go directly to the culture. So, that would suggest that people who have more knowledge may make the appropriate choice. On the other hand, in a non-teaching hosptial, they are less likely to order an IVP. In a teaching hospital, they are more likely to order an IVP, so that while they may save money on the inexpensive tests, they will increase costs on the more expensive tests. Therefore, in this example, knowledge goes in two directions. It is more effective in one sense; it is more cost producing in another sense. It may simply be that in a teaching hospital the attending physician the next morning asks why didn't the intern order an IVP. Thus, the reason he orders it is to demonstrate to his teacher in front of his peers that he is knowledgeable. This is a very destructive aspect of the training of the resident physician. Now maybe if they were allowed to simply write down on a piece of paper what his plan is to demonstrate his knowledge, we could get around that cost. Right now, however, they have got to demonstrate their knowledge by doing it. That is generally the way it works out and you are humiliated if you don't do it. Now here is the response to anemia in a non-teaching service.

The work-up of anemia now rarely includes a bone marrow, which is a painful, expensive procedure. In the non-teaching service about 30 percent of the patients got bone marrows. In the teaching service only about 18 percent got bone marrows. Most anemias, however, can be worked up with very simple laboratory examinations for iron, the smear, bilirubin, one or two other things and you have your diagnosis.

Now there is another way you can try to alter physician patterns; you can give them a protocol. What happens when you give a set protocol to a group of health providers? For example, here is a student PA, there is a graduate nurse and there is an M.D. An M.D. when confronted with the protocol was less effective than a physician's assistant. Before the protocol the PA didn't know what to do, the graduate nurse also did not know what to do, and the M.D. was not doing too well either. When given a protocol of how to approach it all of them improved in their response. The PA improved the most. This would suggest that for many physicians an outline of an approach to things they are familiar with may be one way to get them to respond appropriately. For example, a history of Rheumatic fever was recorded by the physician only 1 percent of the time before a protocol was distributed. After a protocol was distributed, it rose to 97 percent. All right, that was an error of omission. A second example is that before the protocol was introduced, a throat culture was taken 79 percent of the time; this increased to 90 percent after the protocol was introduced. Thus, an error of omission was corrected. Now were antibiotics given? To give an antibotic

unnecessarily is an error of commission and only one half the physicians were making such errors of commission. Once the protocol was introduced, they were able to reduce this error of commission to 18 percent, a really significant change. The same study offers a method for using a computer to alert the physician as to the dangers of, for example, aspirin in a patient with Rheumatoid Arthritis. The computer reminds them that since they have ordered aspirin, they should watch out for bleeding. Every time you order a drug you would be informed of what side effects might occur.

Tnus, we have reviewed several techniques, that of computer alerts, protocols, the use of florescent tape, which all seem to be effective. Conferences and talks seem to be less effective. Now what happens if physicians are given examinations? The Philadelphia College of Physicians has put together a course to retrain physicians. It may be a good course, but this is what happens when the physicians are given a test. They give them a pre-test on all of these subjects and then they give them a post-test and I defy you to show me the difference between the pre-tests and the post-tests. Thus, the emphasis on certification and recertification may not mean "beans" except to raise your costs. I do not know quite what to do with that question. Question from audience: "Before you go too far away from the use of protocols, have you given any thought of how to get this information out to physicians that are not part of your teaching hospital?" Answer: Not every physician is a teacher. That is one of our problems. Yet, we are teachers for our colleagues

throughout the State. So we are trying to (A) identify the ones who want to teach, B) check out their teaching, and (C) help them to teach. This should be a University function but our University is very weak in doing this. Question: "But how about the physicians in small towns or inner city ghettos who are just too busy taking care of sick people to come to conferences. Is the use of a protocol a way to get into those offices and simplify their practices perhaps?" Answer: How do we get into the offices? That is the problem. How do you get them to follow a protocol? Wouldn't that be something that the physicians might find useful and maybe time saving if they went through a check-list? We obviously have to experiment with these things. We have only two full time paid physicians in our community hospital of 400 practicing physicians, myself and the Director of the hospital. We just don't have the people. It is already extraordinary that so many of our staff will even get on a plane and fly to a little town to talk about cancer. Whether they can talk about protocols, talk about the Weed system, teach people to do these things, is alot; we need practically an institute to develop this. Maybe that is what we will end up doing as time goes on. We do have one study for which we have a grant, to look at genetic teaching programs all around the State and then to test to see whether health care is improved. We have a grant to do that through the University and I have suggested we seek a grant for patient education. In the latter, we would take one floor and follow all the patients for a year with health education programs during and after hospitalization. That proposal is now up for debate in the administrative hierarchy. I

think we will do that to see if patient education is useful and how to do it. I don't think it is worthwhile doing these things unless we are studying the process and outcome at the same time. Yet, we are not geared to such research as a community hospital.

The University that should be doing this is not doing it and if we can resolve that, we can do a lot more things than we are doing now. I myself was totally unaware of this kind of thing until this year, and many of us are unaware of these techniques, and are unaware that we have to disseminate this knowledge. Does that answer your questions? At our hospital we are very, very worried about accountability, audit and physician performance. We would like to prevent problems from arising and in addition we have all these physicians in our small rural hospitals.

The last technique that I am convinced works is audit. This is called the bi-cycle approach to audit. I really do not understand this graph; however, I cannot resist showing it to you because it is very beautiful. It is in the text book on quality assurance which was put out by the Aspen Society. There is no question that audit is effective. For example, we are finishing a block of lectures in psychiatry which will end by presenting ten patients who died, because they did not receive psychiatric referrals. Each physician will be asked to present his case. We are doing more and more of that, asking the physicians to present their cases to their peers. The trouble with doing that is that it is very hard to coordinate it and to get the information together. It costs

money; it needs assistance, goodwill, a lot of tact and diplomacy, but it is very effective. What is the data on audit? I would like to point out several things about audit. There are different kinds of criteria. You can have empirical criteria, the mortality rate for children in the U.S.A., for example. You can have criteria by consensus, or normative criteria, those which most physicians think reflect good medical practice. Then you can have essential criteria. For example, it is not so important whether you do a urinalysis, but it is extremely important that you do not miss a kidney infection. There is a distinction there. Lastly, you can have scientific criteria. This is the rarest of all. Scientific or validated criteria are really the only ones we should work from in this very costly world. There are some excellent papers by Dr. Sanazaro who has done the best work in this area. Now optimal criteria for a urinary tract infection would be whether the physician observed various signs and symptoms. That does not necessarily mean that is necessary criteria. The necessary criteria would be that nobody died of a urinary tract infection or that nobody missed doing a culture. Now here, for example, is an audit on some surgeons who were doing unnecessary operations, they were then confronted with the audit results. What happened? Why have they stopped doing unnecessary operations? It is very hard for physicians to continue abnormal behavior when confronted by peers. Another example is where the inappropriate use of antibodies went down from 80 percent to 40 percent following an audit and peer review.

Here is a very nice study from the Utah PSRO. They looked at a number of things, such as whether doctors treating diabetics were looking at their eye grounds. They found that only 64 percent of doctors were looking at the eye grounds of diabetics. Therefore, they gave a conference telling physicians why they should look at the eye grounds. Yet, after the conference only 62 percent of physicians recorded in their charts that they had looked at the fundus. Why? Because physicians will more readily change an error of commission than one of omission.

However, there were also many doctors giving whole blood for anemia. Twenty-six percent of these patients were getting whole blood transfusions for anemia in October of 1975. Whole blood is dangerous; it gives you hepatitis; it gives you white cells to which you can become allergic; it gives you other proteins to which you can have an immune response. It is quite easy to give packed cells, to remove the red cells, spin them down, clean them and give them to the patient. They get the oxygen carrying capacity they need without the harmful substances. This is, therefore, an error of commission and you are able to reduce it from 26 percent to 14 percent by an education program. They audited it, identified the problem, educated the doctor and if he was committing this error, he was likely to correct it.

In summary, it is difficult to change physician behavior. There is little data on how to do it or on how appropriate and inappropriate behaviors affect costs. The examples I have mentioned, however, suggest directions that we should explore.

Thank you.

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Basic Principles

1. Physician heal thyself.

2. Give no deadly medicine.
   (do no harm)

3. An error of commission is worse than an error of omission.

Goals

1. Promotion of Health

2. Prevention of Disease

3. Restoration of Health

4. Rehabilitation

or

1. How to stay well

2. How to recover from an illness

3. How to cope with chronic disease

4. How to die

World Health Organization

The total well being, physical, mental and social, of the individual

DIRECTORY OF CONFERENCE PARTICIPANTS

STATES

ALASKA

Richard R. Wilson
Director, Division of Public Assistance
Health and Social Services
Pouch H-07
Juneau, Alaska 99811

ARKANSAS

Allan B. Cooper
Director, Office of Medical Services
Arkansas Social Services
P.O. Box 1437
Little Rock, Arkansas 72203

COLORADO

Patti Campbell
Chief, Nursing Home Services
Division of Medical Assistance
Department of Social Services
1575 Sherman Street
Denver, Colorado 80203

CONNECTICUT

Margaret Lempitsky
Hospital & Nursing Home Coordinator
Medicaid - Single State Agency
110 Bartholomew Avenue
Hartford, Connecticut 06115

John R. Quinn
State Representative
House of Representatives
63 Unquowa Road
Fairfield, Connecticut 06430

FLORIDA

Charlotte Maguire Behrman, M.D.
Medical Services Coordinator
Department of Health and Rehabilitative Services
1323 Winewood Boulevard
Room 412, Building 1
Tallahassee, Florida 32301

W. O. Fowler, M.D.
Florida Department of Health and Rehabilitative Services
510 Florida Street
Orlando, Florida 32806

Sally Kenaston
Florida Department of Health and Rehabilitative Services
Medical Services
1311 Winewood Blvd., Bldg. 5
Tallahassee, Florida 32301

Audrey R. Michel
Medical Services Coordinator
Department of Health and Rehabilitative Services
1013 E. Colonial Drive
Orlando, Florida 32806

Charles F. Welch
Hospital Consultant
Florida State Survey Agency
OPCLC
P.O. Box 210
Jacksonville, Florida 32201

GEORGIA

Charles M. Beaty
Coordinator, Physician & Individual Practitioner Services
Division of Program Management
Department of Medical Assistance
1010 West Peachtree St., N.W.
Atlanta, Georgia 30309

GEORGIA (continued)

C. Thomas Smith
Director, Division of Program Management
Department of Medical Assistance
1010 West Peachtree Street, N.W.
Atlanta, Georgia 30309

HAWAII

R. W. Millar
State Medicaid Director
DSSH
P.O. Box 339
Honolulu, Hawaii 96809

ILLINOIS

John Robertson
Supervisor, Provider Services Section
Department of Public Aid
931 East Washington Street
Springfield, Illinois 62763

INDIANA

Norma Goldberg
Assistant Director - Medicaid
Department of Public Welfare
100 North Senate Avenue, Room 702
Indianapolis, Indiana 46204

Carl J. Maucieri
Medical Supervisor
State Department of Public Welfare
100 North Senate Avenue
Indianapolis, Indiana 46204

IOWA

Mrs. Pennie Bjornstad
Administrator, Medical Services Section
State Department of Social Services
4th Floor, Lucas State Office Bldg.
Des Moines, Iowa 50319

KENTUCKY

Roy Butler
Executive Director
Center for Program Development
Department for Human Resources
Bureau for Social Insurance
275 East Main Street
Frankfort, Kentucky 40601

Gene Allen Thomas, R.Ph.
Pharmacist Consultant
Division for Medical Assistance
Bureau for Social Insurance
Department for Human Resources
DHR Building, 275 East Main St.
Frankfort, Kentucky 40601

LOUISIANA

John N. Gum, Jr., Administrator
Medical Assistance Program
Office of Family Services
P.O. Box 44065
Baton Rouge, Louisiana 70804

MAINE

Priscilla G. Carney
Director, Division of Medicaid Services
Department of Human Services
Augusta, Maine 04330

MARYLAND

John J. Kent, Jr.
Assistant Secretary
Department of Health and
Mental Hygiene
201 W. Preston Street
Baltimore, Maryland 21201

MASSACHUSETTS

Karen Quigley
Assistant Director
Massachusetts Medicaid
Room 740
600 Washington Street
Boston, Massachusetts 02203

MICHIGAN

Robert C. Bonhag, D.M.D., M.H.A.
Director, Bureau of Medical
Assistance
Department of Social Services
300 S. Capitol Ave., P.O. Box 30037
Lansing, Michigan 48909

Laurence A. Drost
Division Director, Medicaid
Information Division
Bureau of Medical Assistance
Department of Social Services
300 S. Capitol Ave., P.O. Box 30037
Lansing, Michigan 48909

Robert M. Levin, DDS
Chief
Department of Public Welfare
Division of Authorization & Claims
Resolution
Bureau of Health Care
Administration
P.O. Box 30035
Lansing, Michigan 48909

MINNESOTA

Thomas A. Gaylord
Director, Surveillance and
Utilization Review Division
Department of Public Welfare
690 North Robert Street
P.O. Box 43208
St. Paul, Minnesota 55164

Robb Randle
Director, Medical Assistance, M.H.A.
State Welfare Department
690 North Robert Street
St. Paul, Minnesota 55164

Brad Stoneking
Director, Invoice Processing
Division
Department of Public Welfare
690 North Robert Street
P.O. Box 43170
St. Paul, Minnesota 55164

MISSOURI

Marvin A. Bax
Assistant Supervisor--Medical
Claims Payment Unit
Division of Family Services
Broadway State Office Bldg.
Medical Section
Jefferson City, Missouri 65101

NEBRASKA

Don Hogg
Chief, Medical Services
Nebraska Public Welfare
301 Centennial Mall South
Lincoln, Nebraska 68508

NEBRASKA (continued)

Dr. Edward J. Smith
Director, Utilization Review
Nebraska State Welfare
301 Centennial Mall South
10th Floor
Lincoln, Nebraska 68508

NEW JERSEY

Gerald J. Reilly
Deputy Commissioner
Department of Human Services
P.O. Box 1237
Trenton, New Jersey 08625

Thomas M. Russo
Acting Director
Division of Medical Assistance
and Health Services
324 E. State Street
Trenton, New Jersey 08625

Alan G. Wheeler
Assistant Director, Medical
Care Administration
Division of Medical Assistance
and Health Services
324 E. State Street
Trenton, New Jersey 08625

NEW MEXICO

Joseph P. Flynn
Director, Medical Assistance
Health and Social Services
Department
P.O. Box 2348
Santa Fe, New Mexico 87503

NEW YORK

Thomas Amato
Associate Social Services
Program Specialist
Department of Social Services
Division of Medical Assistance
40 North Pearl Street
Albany, New York 12243

Gary DeLuca
Senior Computer Analyst
Medicaid Management Information
System (MMIS)
Department of Social Services
40 North Pearl Street
Albany, New York 12243

Robert Forman
Medical Care Administrator
Nassau County Dept. of Health
Medical Assistance Program
Social Services Building
County Seat Drive
Mineola, New York 11501

Joseph L. Guy
Regional Medical Care
Administrator
Office of Health Systems
Management
Bureau of MMIS
11th Floor, Tower Building
Empire State Plaza
Albany, New York 12221

Robert Lass
Senior Medical Assistance
Program Specialist
Department of Social Services
Division of Medical Assistance
40 North Pearl Street
Albany, New York 12243

NEW YORK (continued)

Stuart Lefkowich
Senior Medical Assistance Specialist
Department of Social Services
Division of Medical Assistance
40 North Pearl Street
Albany, New York 12243

Ronald Lymburner
Supervisor of EDP
MIS/MMIS - Medicaid Management Information System
Department of Social Services
40 North Pearl Street
Albany, New York 12243

Lloyd D. Moses
Director, Bureau of Medical Assistance, Systems Development
Medicaid Management Information System (MMIS)
Department of Social Services
40 North Pearl Street
Albany, New York 12243

Bernard Noonan
Supervisor of EDP
Medicaid Management Information System (MMIS)
Department of Social Services
40 North Pearl Street
Albany, New York 12243

Russell Owens
Assistant Director, EDP
Medicaid Management Information System (MMIS)
40 North Pearl Street
Albany, New York 12243

Howard Schweitzer
Public Health Administrator
Nassau County Department of Health
Medical Assistance Program
Social Services Building
County Seat Drive
Mineola, New York 11501

Gerald Stenson
Department of Health
40 North Pearl Street
Albany, New York 12243

NORTH CAROLINA

Emmett L. Sellers
Deputy Director
Division of Social Services
325 North Salisbury Street
Raleigh, North Carolina 27611

OKLAHOMA

Bertha M. Levy, M.D.
Administrative Assistant
Supervisor, Medical Units
Department of Institutions
Social & Rehabilitative Services
P.O. Box 25352
Oklahoma City, Oklahoma 73125

Charles F. McDermott
Comptroller, Oklahoma DISRS
P.O. Box 25352
Oklahoma City, Oklahoma 73125

Howard W. Stansberry
Medical Services Assistant
Department of Institutions
Social & Rehabilitative Services
P.O. Box 25352
Oklahoma City, Oklahoma 73125

OKLAHOMA (continued)

Barbara Tidler
Staff Assistant, Medical Units
Department of Institutions
Social & Rehabilitative Services
P.O. Box 25352
Oklahoma City, Oklahoma 73125

OREGON

Linda Kaeser
Assistant Director, Department of Human Resources
Administrator of Adult & Family Services Division
417 Public Service Building
Salem, Oregon 97310

SOUTH DAKOTA

Paul Meyer
Assistant Secretary
Department of Social Services
State Office Building
Illinois Street
Pierre, South Dakota 57501

TENNESSEE

Collier Dawson
Supervisor - Medical Costs
Comptroller of the Treasury
1516 Andrew Jackson State Office Building
Nashville, Tennessee 37219

TEXAS

Bridget Cook
Program Specialist
Department of Public Welfare
John H. Reagan Building
Austin, Texas 78701

Carol J. Engleman
Deputy Director, Surveillance/Utilization Control
Department of Human Resources
John H. Reagan Building
Austin, Texas 78701

Emmett W. Greif, M.D.
Deputy Commissioner for Medical Programs
Department of Human Resources
John H. Reagan Building
Austin, Texas 78701

Penny Krug
Special Staff Assistant
Surveillance/Utilization Control
Department of Human Resources
John H. Reagan Building
Austin, Texas 78701

UTAH

Neal F. Christensen
Director, Health Care Financing
Department of Social Services
150 West North Temple
Salt Lake City, Utah 84103

VIRGINIA

Freeman C. Hays, M.D.
Director, Virginia Medical Assistance Program
109 Governor Street
Richmond, Virginia 23219

WASHINGTON

Arnold Whedbee
Coordinator, Legal Services
for the Elderly
Senior Citizens Legal
Services Project
State Department of Social
and Health Services
203 West Holly
Bellingham, Washington 98225

WEST VIRGINIA

Helen M. Condry
Director, Division of Medical Care
Department of Welfare
1900 Washington Street, East
Charleston, West Virginia 25305

J. L. Mangus, M.D.
Medical Director
Department of Welfare
Division of Medical Care
1900 Washington Street, East
Charleston, West Virginia 25305

Jack Tamplin
Director, Division of Medical
Processing
Department of Welfare
1900 Washington Street, East
Charleston, West Virginia 25305

WYOMING

Ernest Rumpf
Director, Medical Assistance
Division of Health and Medical
Services
Department of Health and Social
Services
Hathaway Building
Cheyenne, Wyoming 82002

PROVIDER ORGANIZATIONS

B. Marc Allen
Executive Director
Essex Physicians Review
Organization
15 Village Plaza
South Orange, New Jersey 07079

Bruce W. Ambrose
Deputy Director
Michigan State Medical Society
120 West Saginaw
East Lansing, Michigan 48864

Al Ankrum
Executive Director
Baltimore City PSRO
2 Hamill Road
Baltimore, Maryland 21210

Jean G. Barker
Director of Internal Operations
N.C. Medical Peer Review
Foundation
11 Navaho Drive
Raleigh, North Carolina 27606

David A. Bennahum, M.D.
Medical Education Director
Presbyterian Hospital
Albuquerque, New Mexico 87106

Richard P. Bigelow, M.D.
Medical Director, Physician
Ambulatory Care Evaluation
Utah Professional Review
Organization/Utah PSRO
555 East 2nd South
Salt Lake City, Utah 84102

Richard E. Bouchard, M.D.
Professor of Medicine
University Associates in
Comprehensive Health Care
Given Health Care Center
DeGoesbriand Unit, MCHV
Burlington, Vermont 05401

James C. Bramham, M.D., FAAP
American Academy of Pediatrics
1801 Hinman Avenue
Evanston, Illinois 60204

Rollin Bridge, Pharmacist
President, Iowa Pharmaceutical
Association
Varsity Drug
101 East Main
Lamoni, Iowa 50140

Roni Briese
Acting Director
Professional Standards Review
Organization of Central Florida
P.O. Box 6061 B
Orlando, Florida 32803

Walter E. Brown, M.D.
Chairman, Advisory Committee on
Medical Care for Public
Assistance Recipients
Oklahoma Public Welfare Commission
4439 S. Birmingham Avenue
Tulsa, Oklahoma 74105

J. S. Burner
Director, Medical Economics
Florida Medical Association
801 Riverside Avenue
Jacksonville, Florida 32204

John W. Bussman, M.D.
5415 S.W. Westgate Drive
Portland, Oregon 97221

James Q. Cannon
Director of Planning and Analysis
Utah Professional Review
Organization/Utah PSRO
555 East 2nd South
Salt Lake City, Utah 84102

Edward J. Carels, Ph.D.
Research Director
Health Care Management
Systems, Inc.
470 Nautilus Street
Suite 207
La Jolla, California 92037

James W. Clark, Jr.
Director, Washington Office
American Optometric Association
1730 M Street, N.W., #206
Washington, D.C. 20036

James E. Cunningham
President, N.J. Association of
Health Care Facilities
142 W. State Street
Trenton, New Jersey 08608

Jay B. Cutler
Special Counsel & Director
Government Relations
American Psychiatric Association
2033 M Street, N.W., Suite 802
Washington, D.C. 20036

Stephen Davidson, Ph.D.
Assistant Professor
American Academy of Pediatrics
1801 Hinman Avenue
Evanston, Illinois 60204

Mohan L. Garg
Associate Professor
Department of Community Medicine
Medical College of Ohio at Toledo
C. S. #10008
Toledo, Ohio 43699

Angie Guggenberger Nelson
Director of Research & Medical Svcs.
Minnesota Medical Association
900 American Nat'l Bank Bldg.
St. Paul, Minnesota 55101

Arthur Harris
Florida Manor Nursing Home
P.O. Box 5577
Orlando, Florida 32805

Joseph C. Isaacs
Staff Associate
Association of American
Medical Colleges
Department of Teaching Hospitals
Suite 200
One Dupont Circle, N.W.
Washington, D.C. 20036

Susan D. Kahn
Assistant Secretary, Council on
Dental Care Programs
Director, Quality Assurance
American Dental Association
211 East Chicago Avenue
Chicago, Illinois 60611

Betty Calhoun Kirkwood
Executive Director
West Virginia Medical Institute
5120 Venable Avenue, S.E.
Charleston, West Virginia 25304

Ruth P. Kovach
Administrator, Global Home
Health Services, Inc.
151 107th Avenue, Suite 211
Treasure Island, Florida 33706

Gary N. Lapidas
Central Massachusetts PSRO
105 Merrick Street
Worcester, Massachusetts 01609

Roland V. Levzinger
President
Minnesota State Pharmaceutical
Association
St. Paul, Minnesota 55164

John R. McCain, M.D.
Chairman, Health Care Commission
The American College of
Obstetricians and Gynecologists
One East Wacker Drive, Ste. 2700
Chicago, Illinois 60601

Brian J. McNeeley
Director of Drug Reimbursement
Programs
National Association of Chain
Drug Stores, Inc.
1911 Jefferson Davis Highway
Suite 504
Arlington, Virginia 22202

Anita T. Molano
Director-Government Financing
Ohio Hospital Association
88 E. Broad Street
Columbus, Ohio 43215

Mark Morris
Counsel
Hospital Association of New
York State
15 Computer Drive, West
Albany, New York 12205

Karl D. Morrison, CAE
Executive Director
Florida Optometric Association
520 E. Hillcrest
P.O. Box 6161-C
Orlando, Florida 32803

Byron B. Oberst, M.D.
President, Omaha Childrens
Clinic PC
3925 Dewey Avenue
Omaha, Nebraska 68105

Dr. Richard P. Penna
Assistant Executive Director
for Professional Affairs
American Pharmaceutical
Association
2215 Constitution Avenue, N.W.
Washington, D.C. 20037

David F. Perry
Director, Professional Affairs
and Planning
Hospital Association of
New York State
15 Computer Drive, West
Albany, New York 12205

George J. Polli
Assistant Director
Department of Computer
Systems in Medicine
American Medical Association
535 North Dearborn Street
Chicago, Illinois 60610

John Reagan, M.D.
Minnesota State Medical
Association
101 East 5th Street
St. Paul, Minnesota 55101

Mr. Thomas P. Robb
Program Assistant
American Academy of Pediatrics
1801 Hinman Avenue
Evanston, Illinois 60204

Carl Robinson, M.D.
Physician
1702 6th Avenue
Bessemer, Alabama 85020

Robert Shackelford, M.D.
Vice Speaker, House of Delegates
American Academy of Family Physicians
1740 West 92nd Street
Kansas City, Missouri 64114

Paul N. Shaheen
Assistant Director
Michigan Hospital Association
2213 East Grand River Avenue
Lansing, Michigan 48912

Harvey Shwed, M.D.
Medical Society of New Jersey
268 High Street
Newark, New Jersey 07102

Billy F. Simmons
Director
Mississippi Medicaid Commission
P.O. Box 5160
Jackson, Mississippi 39216

M. Frank Sohmer, M.D.
President and Medical Director
N.C. Medical Peer Review Foundation
11 Navaho Drive
Raleigh, North Carolina 27606

James Stacey
Associate Editor
American Medical News
535 N. Dearborn
Chicago, Illinois 60610

Debra Stackpole
Assistant Director
Bay State Health Care Foundation
100 Charles River Plaza
Boston, Massachusetts 02114

Mark Tabak
Executive Director
Maryland Statewide PSR Council
6701 Elkridge Landing Road
Linthicum, Maryland 21090

Boyd Thompson
Executive Director
AAPSRO
P.O. Box 230
Stockton, California 95201

Lawrence N. Welch
Staff Specialist
American Hospital Association
Division of Medical Services
840 N. Lake Shore Drive
Chicago, Illinois 60611

Sherry Wellman
Government Agency Liaison
Michigan State Medical Society
120 W. Saginaw
East Lansing, Michigan 48823

George M. Wheatley, M.D., FAAP
American Academy of Pediatrics
1801 Hinman Avenue
Evanston, Illinois 60204

Una Beth Westfall
Field Coordinator, Implementation of Standards
American Nurses' Association
2420 Pershing Road
Kansas City, Missouri 64108

REGIONAL OFFICES

REGION I

Neil P. Fallon
Office of Regional
Administrator
Health Care Financing
Administration
Room 1309, John F. Kennedy
Federal Building
Boston, Massachusetts 02203

Edward J. Gately
Medical Care Administration
Specialist
Medicaid Bureau
Room 1301, John F. Kennedy
Federal Building
Boston, Massachusetts 02203

Donald L. Nelson
Acting Director
Division of Program Operations
HCFA, Medicaid
John F. Kennedy Federal Bldg.
Boston, Massachusetts 02203

REGION II

Theodore E. De Santis
Supervisory Medical Services
Specialist
DHEW/HCFA/Medicaid Bureau
26 Federal Plaza, Room 3842
New York, New York 10007

Martin Geliebter
PSRO Specialist
DHEW/HCFA/HSQB/Div. PSRO
26 Federal Plaza, Room 3300
New York, New York 10007

Joseph Meyer
Regional Medical Services
Specialist
Program Operations Division
Medicaid Bureau/HCFA/DHEW
26 Federal Plaza
New York, New York 10007

REGION III

Alwyn L. Carty
Regional Administrator
Health Care Financing
Administration
Box 7760
Philadelphia, Pennsylvania 19101

Harvey B. Koster
Acting Regional Medicaid Director
Health Care Financing
Administration
3535 Market Street
Gateway Building
3rd Floor
Philadelphia, Pennsylvania 19101

REGION IV

Edward Davis
Acting Regional Medicaid Director
Health Care Financing
Administration
50 Seventh Street, N.E.
Room 708
Atlanta, Georgia 30323

Stacy Johnson
Medicaid Program Specialist
Health Care Financing
Administration
50 Seventh Street, N.E.
Atlanta, Georgia 30323

REGION IV (continued)

Harlan W. Nye
Chief, Social Work Service
Veterans Administration
Outpatient Clinic
83 W. Columbia Street
Orlando, Florida 32806

Allie Ramsey
Contract Specialist
DHEW/Health Care Financing Administration
50 Seventh Street, N.E.
Atlanta, Georgia 30323

Virginia M. Smyth
Acting Regional Administrator
Health Care Financing Administration
50 Seventh Street, N.E.
Atlanta, Georgia 30323

REGION V

W. John Dye
Associate Regional Commissioner for Medicaid
DHEW/Health Care Financing Administration
400 E. Randolph
Room 3315
Chicago, Illinois 60601

REGION VI

James A. Adams
Acting Regional Medicaid Director
DHEW/HCFA/Medicaid Bureau
1200 Main Tower Building
Room 2025
Dallas, Texas 75202

REGION VII

Bill Blake
Acting Regional Medicaid Director
Federal Office Building
601 East 12th Street
Kansas City, Missouri 64106

REGION VIII

Marion E. Skinner
Acting Regional Medicaid Director
Medicaid Bureau
Room 11037 - Federal Office Bldg.
1961 Stout Street
Denver, Colorado 80294

REGION IX

Irwin S. Hoff
Acting Regional Medicaid Director
HCFA/Medicaid Bureau
50 United Nations Plaza
San Francisco, California 94102

Lankford Williams
Medical Services Specialist
DHEW/HCFA/Medicaid Bureau
50 United Nations Plaza, Rm. 432
San Francisco, California 94102

REGION X

Carl R. Coggins
Acting Regional Medicaid Director
DHEW/HCFA/Medicaid Bureau
1321 Second Avenue
Seattle, Washington 98101

CENTRAL OFFICE

Rhoda Abrams
Director, Program Development
HSQB/HCFA
5600 Fishers Lane
Rockville, Maryland 20857

James S. Bailey
Office of Program Integrity
DHEW/Health Care Financing Administration
East High Rise Building
Room 501
6401 Security Boulevard
Baltimore, Maryland 21235

Charles R. Booth
Chief, Part A Systems Branch
DHEW/Health Care Financing Administration
Medicare Bureau, Division of Systems
Room A-5, Gwynn Oak Building
6401 Security Boulevard
Baltimore, Maryland 21235

Dan Boyle
Program Analyst
HCFA/MMB/IMM
330 C Street, S.W.
Washington D.C.

Bill Coughlan
Staff Director, JPSRC
5600 Fishers Lane
Room 1635
Rockville, Maryland 20857

Jodi Dunn
Program Analyst
Division of Analysis & Evaluation
Medicaid Bureau
330 C Street, S.W.
Washington, D.C. 20201

Roger Egeberg, M.D.
Chief Medical Officer
HCFA/Medicare Bureau
East High Rise Bldg., Rm. 737
6401 Security Boulevard
Baltimore, Maryland 21235

Leslie G. Ford, M.D.
Health Standards and Quality Bureau
HCFA/DHEW
5600 Fishers Lane
Rockville, Maryland 20857

William Fullerton
Deputy Administrator, HCFA
330 C Street, S.W.
Washington, D.C. 20201

Ginger Hale, Acting Chief
Medicaid Management Clearinghouse Branch
Institute for Medicaid Management
330 C Street, S.W.
Washington, D.C. 20201

James Kolb
Office of Child Health
HCFA/MMB
330 C Street, S.W.
Washington, D.C. 20201

David Landis
Supervisory Contractor Operations Specialist
Medicare Bureau
East High Rise Bldg., Rm. 2-J-5
6401 Security Boulevard
Baltimore, Maryland 21235

Lawrence Levinson
Acting Division Director
Institute for Medicaid Management
DHEW/Health Care Financing Administration
330 C Street, S.W.
Washington, D.C. 20201

Richard Pecorella
Program Analyst
HCFA/MMB/Institute for
Medicaid Management
330 C Street, S.W.
Washington, D.C. 20201

Patricia O. Schoeni
Director, Office of Public
Affairs
DHEW/Health Care Financing
Administration
330 C Street, S.W.
Washington, D.C. 20201

Robert A. Silva
Acting Assistant Director
for State Operations
DHEW/HCFA/MMB
Office of State Operations
330 C Street, S.W.
Washington, D.C. 20201

Dr. Selvin Sonken
Dental Advisor
Health Care Financing
Administration
330 C Street, S.W.
Washington, D.C. 20201

Dr. Elsie M. Tytla
Medical Advisor
HCFA/MMB
Mary E. Switzer Bldg., Room 5328
330 C Street, S.W.
Washington, D.C. 20201

Les Weinstein
Program Analyst
HCFA/MMB
330 C Street, S.W.
Washington, D.C. 20201

Paul Willging, Ph.D.
Acting Director, MMB
Health Care Financing
Administration
330 C Street. S.W.
Washington, D.C. 20201

OTHER ORGANIZATIONS

Richard E. Arnold
Manager, Government Affairs
Smith Kline & French Laboratories
1500 Spring Garden Street
Philadelphia, Pennsylvania 19101

Dana L. Brown
Senior Vice President and Secretary
Progressive Medical Group, Inc.
101 North Lynnhaven Road
Virginia Beach, Virginia 23452

John M. Emery
Assistant Director
Government Relations
Blue Shield Association
1730 Pennsylvania Avenue, N.W.
Suite 220
Washington, D.C. 20006

Beverly Goodman
Professional Liaison Staff Member
Bradford Administrative Services, Inc.
100 Church Street
New York, New York 10007

Patrick L. Harkins
Regional Director
Progressive Medical Group, Inc.
5800 Diplomat Circle
Suite 204
Orlando, Florida 32810

Richard Hungerford
Optimum Systems, Inc.
2801 Northwestern Parkway
Santa Clara, California 95051

Betty Mullin, Consultant
The Computer Company
1905 Westmoreland Street
Richmond, Virginia 23230

June Mustiful
Manager, Government Health Research
CNA Insurance
One CNA Plaza
Chicago, Illinois 60685

Wilfred I. Myers
Associate General Manager
Prudential Insurance Company
P.O. Drawer 471
Millville, New Jersey 08332

Wesley E. Peake
Regional Director
Progressive Medical Group, Inc.
5800 Diplomat Circle
Suite 204
Orlando, Florida 32810

Kendall Phelps
Director, Health Management Services
Optimum Services, Inc.
2801 Northwestern Parkway
Santa Clara, California 95051

Patricia Pond
Manager, Administrative Services
Cardiac Datacorp, Inc.
1280 Blue Hills Avenue
Bloomfield, Connecticut 06002

Sidney Pransky
Director of Provider Audits
Pilgrim Health Applications
41 North Road
Bedford, Massachusetts 01730

Lester A. Prothe
Senior Vice President
Exception, Inc.
1700 Alexandria
Lexington, Kentucky 40506

Ronald D. Simmons
Senior Vice President, Operations
Blue Cross - Blue Shield of Iowa
636 Grand Avenue
Des Moines, Iowa 50307

Ronald Sokol-Margolis
Director for Planning
Pilgrim Health Applications and
Arthur D. Little, Inc.
41 North Road
Bedford, Massachusetts 01730

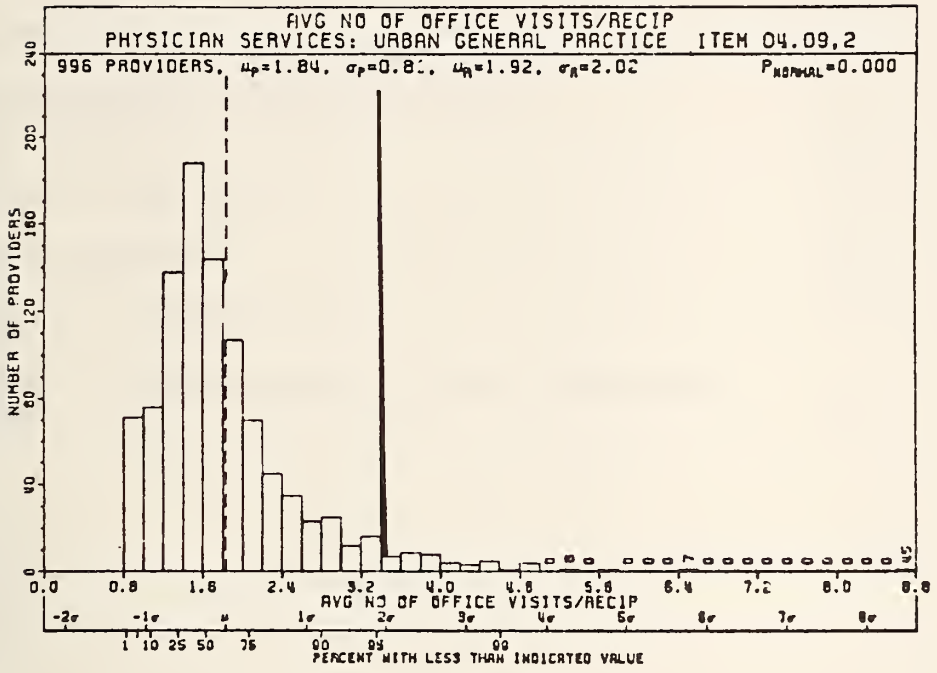
A. C. Starin
Senior Director - Medicaid
Administration
Blue Cross Association
840 N. Lake Shore Drive
Chicago, Illinois 60649

John Tripodi
Vice President
Pilgrim Health Applications
Arthur D. Little, Inc.
41 North Road
Bedford, Massachusetts 01730

APPENDIX

PROFILING OF HEALTH CARE SERVICES UTILIZATION:

A GUIDE FOR PROVIDERS



DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
HEALTH CARE FINANCING ADMINISTRATION
MEDICAID BUREAU
INSTITUTE FOR MEDICAID MANAGEMENT

Progress Through Partnership
Institute for Medicaid Management

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INTRODUCTION

This document is intended as a guide to profiling for providers of health care to Medicaid patients. The illustrations used are, for the most part, couched in terms of the process used in the Surveillance and Utilization Review Subsystem (S/URS) of the Medicaid Management Information System (MMIS). The MMIS is a system sponsored by the Medicaid Bureau (MMB), a part of the Health Care Financing Administration (HCFA). In contrast to all other systems used for profiling of health services utilization under Medicaid, it is funded at 90% for installation by a State, and 75% for operating expenses, under a 1972 amendment to Title XIX of the Social Security Act, the basic Medicaid statute. It is the main system used for profiling by States with Medicaid programs today, and for that reason it seems most appropriate to describe the profiling process in the fashion in which the S/URS carries it out. The Institute for Medicaid Management has other materials related to profiling and S/URS in stock. Interested parties are invited to contact the Institute for further information. Please address requests to:

The Institute for Medicaid Management
Mary E. Switzer Building
330 C Street, S.W.
Washington, D.C. 20201

Telephone: (202) 245-6575

FOREWORD

Joseph Califano, Secretary of Health, Education, and Welfare, reminded HEW employees in a recent speech that the various HEW programs are "...among the noblest work of a civilized society," and that, but for them, some citizens could be forced to do without the most minimal necessities of existence. Without the Medicaid program, many people would have less access to health care, however severe their medical conditions.

At root, our Nation's willingness and ability to provide necessary services and material goods to our elderly, poor and disabled is the prime measure of our worth as a society. Our degree of success is measured in ways that mere words cannot imply. In the Medicaid program, the measure of success is the amount of human suffering and waste of potential that the provision of adequate health care has prevented.

More pragmatic, however, are the problems connected with this task of providing publicly funded care, assuring that funds are usefully and properly spent, keeping track of what we are spending, and making sure that the care purchased is of decent quality.

The answer to the first point lies with Congress, the State legislatures and the willingness of taxpayers; the answers to the rest lie with Title XIX program managers. These questions, of course, are not wholly independent--if a program cannot demonstrate fiscal accountability and quality assurance, it is quite likely that at some point tne flow of funds will be restricted.

The "burden" of program costs has to be weighed against the possible consequences of not spending the funds: lifelong disability and economic dependency of some citizens upon the State or Federal governments, loss of employment potential, social unrest, and preventable death. At the same time, however, in connection with what has come to be called the "Fiscal Crisis of the States," the costs, and not the benefits, become a major concern.

The role of S/URS is not primarily that of cost reduction, or even (primarily) cost control: its presence is dictated by the fact that in a program that expends $18 billion in "nickels and dimes," common sense dictates that managers must know where the money went and what it paid for. Cost control, however, is an expected side-effect of a working S/URS unit. The reason is that S/URS allows for a detailed, comprehensive surveillance of expenditures at the most basic level -- the interaction between provider and recipient of services.

Another way to view the role of S/URS is to think of it as the lens through which one can scrutinize the program environment. Review

and regulatory mechanisms create the situation in which providers and recipients interact; S/URS tells what is happening. Again, common sense dictates that any discussion of the usefulness of regulatory or other changes takes place in the dark if there is no way to assess their effects, no way to focus on the problems that actually demand correction.

S/URS is not a panacea. It can be expected that cost and quality problems in State Medicaid programs will continue even after successful implementation of S/URS. However, it is possible to make one promise: to the extent that cost and quality problems in the State are due to misutilization that is statistically detectable, S/URS will uncover them.

So bold a statement, of course, assumes certain conditions: that a working commitment will be made to the effort from the State Agency Director on down, that sufficient staff and computer resources will be devoted to the effort, and so on. Given these conditions, S/URS has demonstrated that it will work. It will work because it addresses the problem of Medicaid management at one of the focal points of cost generation and escalation--the provider/recipient interaction. The S/UR Subsystem achieves this by sorting enormous volumes of information and isolating situations that are likely to require correction because of quality of care anomalies.

The role that S/URS is designed to fill would be a crucial one in

any instance; given the current problems facing the Medicaid program, it is absolutely essential. Because Title XIX permits States to specify the volume of services that they will provide as long as therapeutic objectives can reasonably be met, reduction in the scope of benefits, tightening of eligibility so as to exclude some persons, etc., are always options. They are distasteful options for a variety of reasons. Aside from the loss of the benefits of the program to society at large, and the possibility of protracted litigation which always attends adverse changes in social welfare programs, there is the simple fact that below a certain level of quantity, the quality of a medical care program hardly matters. At some low level, little care is virtually the same as no care, especially in the case of the chronically ill and the very young. If a State is unwilling to fund sufficient care for these persons, it might as well fund no care.

Thus, any alternative to program reductions that is viable should appear attractive. The implementation of S/URS and the establishment of a working S/URS program is such an option. If it becomes possible to pinpoint sectors of the State program displaying rapid cost escalation, and to isolate within those sectors the provider/recipient interactions that are responsible for escalation, much of the same effects -- and more desirable effects -- are achieved, as would be achieved by trimming the program's scope of services. And this is done without the attendant social costs and with the probability of an attendant increase in quality of care.

A State Medicaid program always faces the difficulties of cost escalation, lack of control, and the need for extraordinarily detailed information in order to ascertain where problem areas lie. S/URS is a solution to these needs. Regardless of the fiscal or political pressures a State program operates under, the implementation of S/URS and a working S/URS unit are steps that should be considered before program cutbacks are adopted. Only after S/URS has failed should that step be taken. The premise of the discussion, of course, is that it won't.

AUTOMATED REVIEW OF MEDICAID PRACTICE:
The Benefits for Providers

AUTOMATED REVIEW OF MEDICAL PRACTICE IN THE MEDICAID PROGRAM: BENEFITS FOR PROVIDERS

by CHARLES MACKAY, M.A.

While assisting providers was not the primary motivation that led the Medicaid Bureau (MMB) to promote automated review originally, and the system used was designed with several different goals in mind, automated review[1] of professional practices in the Medicaid program can be used to assist physicians, dentists, and other providers. Understanding the possibilities for provider-oriented use of practice reviews requires both a grasp of the process used, and the circumstances that led MMB to promote such reviews.

Background

The Federal and State governments, having undertaken to provide medical care to the needy, cannot abandon the effort. On this point, nearly everyone agrees. Termination or significant reduction of benefits by any of the 53 States or territories involved has become a political and social impossibility.

Even if the Medicaid program is eventually absorbed by National Health Insurance, the need to provide essentially free medical services to a large population (22.9 million in fiscal 1976, or about 10% of the American people) remains.

Public opinion surrounding "welfare" matters has shifted during the last ten years. Recipients have come to view assistance as a right. Courts have, on the whole, supported the view that once rationally set eligibility criteria are met, public assistance *is* a right. At the same time, the cry that "welfare" must be "earned" in some way or another has been heard more and more frequently.

One can argue that the public acceptance welfare programs enjoyed in the 1960s was *not* based on a public mood indefinitely more liberal then, but on the perception that the programs were "sold" as *self-amortizing*. Poverty was to be wiped out and the need for welfare thereby removed. If the public's current attitude to "welfare" is viewed as one of disillusionment, rather than revulsion, much of the dislike of "welfare" makes sense.

We are left now with an observable antipathy towards such programs as Medicaid, and poverty subsidized, rather than eliminated. Despite these disappointments, however, such programs as Medicaid have made the lives of the poor better. Thus, the program's continued viability in a time of disillusionment: abandoning it would mean a drastic cut in already minimal living standards of a sizable portion of the population.

Against this backdrop, the Medicaid program and the physicians and others practicing within

[1] "Automated Review" encompasses a technique called "profiling", in which analyses of the practice patterns of providers in the Medicaid program are produced as a means of quality and cost control. The use of profiles is required by 45 Code of Federal Regulations 250.18(a)(1)(ii). There are a number of computer systems for carrying out profiling; the Surveillance and Utilization Review System of the Medicaid Bureau sponsored MMIS is used for illustration here as it is the most sophisticated design currently in use, and is the only system certified for 90% Federal matching for development and installation under Section 235 of P.L. 92-603.

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it are operating in an atmosphere vastly different from that with which it began. This changed atmosphere manifests itself in two interesecting and reinforcing demands: one, from recipients and some members of Congress, for accountability to the *consumers* of publicly funded medical care; the other, from the public at large, for fiscal and "social" accountability.

Program Data, Program Demands

Medicaid costs jumped from $1.7 billion in fiscal 1966 to $14.6 billion in fiscal 1976. This amounts to an average annual growth rate of about 24% per year (a compounded growth of 759% over the life of the program). Much of this increase was due to the almost unplumbed depths of medical need existing among the poor; but all of the increase cannot be explained by this.

By comparison, from 1969-1976, the total number of recipients increased only 75%, and the consumer price index for medical care items rose only 63%[2]. Excluding the "start-up" costs still leaves a 236% increase in total program costs, over 1969-76, with an average annual growth rate of 19%.

This increase forces all concerned with medical care for the poor to face a rather grim choice: gain control of costs, or greatly reduce benefits. (This is by no means a doomsday prediction: it was presented in just this form during a Senate hearing in 1976[3].)

The other aspect of the public demand on the Medicaid program is "social accountability". Although the political dimensions of this problem are still evolving, the public wants assurance that no tax dollar is wasted, that tax funds go for efficient, quality care for the poor actually in need of it.

Here, the pressure necessarily passes from the program officials to the physicians and other providers. Some providers have committed gross, and in some cases criminal abuses of the program and those it seeks to serve. Although the number of physicians and others involved appears to be encouragingly small, it is estimated that, nationwide, fraud and program abuse constitute 6.4% of the total claims volume. (In cost terms, this means about $934 million of total program costs in FY 1976 represented clear misuse of State and Federal funds.)

In this light, it is understandable why the elimination of fraud, abuse, and poor quality care has become a priority item for the new Administration.

Automated Practice Review

Contemporary information processing technology allows program managers to meet the demands for fiscal and social accountability in a way that can actually be of service to the physician community. The Federal government, through the Medicaid Bureau, sponsors a computer system designed to handle all claims processing and payment tasks in State Medicaid programs, *and* to provide all normally necessary management information. This system has the advantage of identifying the aberrant practitioner without harassing the majority.

Although there are a number of subsystems which are designed to perform various tasks, the one that should be of particular interest to physicians is the Surveillance and Utilization Review Subsystem (S/URS). It is designed to provide an ongoing statistical analysis of the practice of *each* physician participating in the Medicaid program in a particular State. Information for this analysis is derived from the record of claims which the physician has submitted over a 15-month (or shorter) period. Clearly, S/URS cannot provide a picture of *all* aspects of a practice. It does not measure "bedside manner" What it can do is subject

[2]All data used in calculations for this article are from *Data on the Medicaid Program: Elgibility, Services, Expenditures Fiscal Years 1966-77*, (Staff, Committee on Interstate and Foreign Commerce, Subcommittee on Health and the Environment, Washington, D.C. (Committee Print 95-10; available from the Superintendent of Documents, US GPO, Washington, D.C. 20402)), with the exception of total expenditures and total recipients figures for 1976, which are from *Medicaid Management Report, Annual Report, FY 1976* (MMB/HCFA/DHEW, Washington, D.C. 20201).

[3]Medicare Medicaid Administrative and Reimbursement Reform, Senate Finance Committee, Subcommittee on Health, July 26, 1976, hearing report, p. 1.

the physician's patterns of treatment to a statistical analysis more pains-taking than any which the individual practitioner could provide on his or her own.

S/URS was designed with the understanding that, even when furnished with an exact diagnosis and relevant personal characteristics of the patient, no computer could possibly assess whether an ideal course of treatment was followed, or whether it was adequate.

The norms utilized in S/URS are simple: the Medicaid practitioner's practices are compared to the *practices of his peers* in the same speciality and geographic area. The norm the computer employs is thus not only "fair", but also dynamic: as patterns of practice change in response to growing population, new standards and new technologies, S/URS can follow, automatically readjusting its standards with each new claim paid.

To accomplish this, the State Surveillance and Utilization Review unit selects a certain number of data items essential to, or useful in, the analysis of medical practice. (In States with the most elaborate systems, this can be up to 200 items *per computer run.*) The item "injections per office visit", for example, is defined in the system as "total injections billed for time period T, divided by total office visits billed for the same period." The average value for the selected items is calculated based on the file of all claims paid. This allows the calculation of norms for each group of practices in the State; subgroups selected for analysis may be all neurologists, internists in urban areas, or general practitioners in rural areas, etc.

Each physician's pattern of practice (as revealed by claims submitted by him or her and paid within the past 15 months) is then compared against the average pattern.

By *statistical* methods carried out in the computer, S/URS selects for human review only those providers whose patterns of practice are *significantly* different from the typical group pattern, on a *statistical* basis. The process involves some subtleties beyond this; in particular, deciding which subgroup of physicians a particular practitioner should be compared with is often difficult. The essentials of the method however, are simple. As with all computerized processing, the task could be carried out with pencil and paper; S/URS relieves the tedium and shortens the task.

The S/URS process meets both recipient and public demands by selecting for human review the practice profiles of all physicians who, based on statistical analysis, *may* be creating anomalies, medical or financial, in the program. By analyzing *both* the financial and treatment aspects of each practice under Medicaid, S/URS allows program managers to address *both* cost and quality-of-care issues. (An identical process is carried on for recipients: the "norm" here is the typical pattern of services *received* by patients in apposite subgroups.)

In the review of practice profiles, a typical State agency will first subject them to lay review, with the purpose of discovering any explainable statistical anomalies, not related to medical practice, which may have caused the system to erroneously select the physician for review. Profiles not eliminated at this level are reviewed by medical personnel; only then is the physician contacted in an attempt to explain the anomaly detected by the system. Most questions raised by review are resolved at the informal level. For example, if the questionable item alerted by the computer is the ratio of injections to recipients, the fact that the physician has recently been treating a large number of patients with diagnoses requiring injectable antibiotics resolves it. On the other hand, this informal step may reveal that the practitioner has engaged in questionable professional practices, which may require referral to the local medical society or Professional Standards Review Organization. Or, evidence may be uncovered which raised the question of violations which should be referred to the State Attorney General for further investigation and possible prosecution.

The image presented so far may be that of a "Big Brother" waiting to pounce on the unwary who deviate by the smallest amount from some bureaucrat's norms. This is not the case. The norm against which a practice is compared is the practice of peers in a relevant subgroup. Further, as stated, the norm is dynamic - updated to keep pace with change; and the statistical tests employed are designed to *exclude* small variations likely to be due to patient-pool differences, geographic locale, etc. The tables which follow give a highly simplified example

Representative Physician Exception Experience: Urban General Practice Common Report Items[1,2]

I. % INITIAL OFFICE VISITS	ARKANSAS	MICHIGAN[4]	MINNESOTA	OHIO
Average	34.71	N/A[5]	21.21	18.36
Standard Deviation	34.20	N/A	26.65	22.97
Exception Control Limit (Upper)	103.11[3]	92	74.51[3]	64.30[3]
No. of Exceptions	0	13	1	6
No. of Providers	395	1065	1124	1806
% Providers with Exceptions in this Category	0.00%	1.22%	0.09%	0.33%
II. MAX. NO. OFFICE VISITS/1 DAY				
Average	N/A	12.33	3.74	5.37
Standard Deviation	N/A	36.35	2.84	10.22
Exception Control Limit (Upper)	N/A	40	15	46
No. of Exceptions	N/A	24	9	16
No. of Providers	395	1065	1124	1806
% Providers with Exceptions in this Category	N/A	2.25%	0.80%	0.89%
III. RATIO DIAG. RAD/ALL PATIENTS				
Average	0.22	0.11	0.27	0.24
Standard Deviation	0.24	0.25	0.79	0.38
Exception Control Limit (Upper)	0.70[3]	1.00	1.85[3]	1.00[3]
No. of Exceptions	1	7	3	2
No. of Providers	395	1065	1124	1806
% Providers with Exceptions in this Category	0.25%	0.66%	0.27%	0.12%
IV. LTC VISITS/LTCF PATIENT				
Average	1.83	N/A	7.51	3.38
Standard Deviation	2.90	N/A	10.34	4.23
Exception Control Limit (Upper)	7.63[3]	3.00	28.19[3]	11.84[3]
No. of Exceptions	1	7	3	0
No. of Providers	395	1065	1124	1806
% Providers with Exceptions in this Category	0.25%	0.65%	0.26%	0.00%

[1]Data resulting from one exception processing in a class grouping in one quarter of 1976.

[2]Only report items selected for exception processing by at least two States in at least one quarter of 1976 are shown.

[3]Exception Limit = Avg. + 2 standard deviations.

[4]For Michigan, Urban General Practice = General Practice in Detroit Metropolitan Area.

[5]Data not available.

of the results that may be obtained when S/URS analyzes the practices of an entire physician population in a State. It is worth noteing that for most items, *2% or less* of the State's Medicaid physicians were selected for *office* review; of these, only a few would have abberations significant enough to require field contact. Charts I-IV illustrate the results of exception processing for four typical items in four States. It is noteworthy that the largest percentage of reports generated is 2.25%, on the item "maximum office visits in one day".

The positive effects SUR/S brings about for providers are several:

(1) Automated statistical review can enable the State Medicaid programs to focus investigative and corrective activity only on those providers whose practices are statistically variant enough to be suspect — thus, from the beginning the provider who is simply giving good quality medical care, as measured by the performance of his peers, is dropped from consideration by the State agency. The other side of the coin is that *all* statistically abberant practices can be brought to light, and only those most worrisome investigated. While it may well be that differences in patient pool, practice conditions, and so on, explain the anomalies, it is often typically the case that a situation which actually requires corrective action — ranging from educational contacts through provider groups to prosecution for fraud and abuse — is found. It is *known* that the majority of providers pose no problems for the program in fraud/abuse and quality-of-care areas. The regulatory mode of control, however, (as with laws in general) is of necessity *universal*. It is submitted that the only real alternative to regulation is something like automated review combined with appropriate corrective action.

(2) As mentioned earlier, S/URS profiles can provide a sophisticated analysis of physicians' practices. In cases where a physician should be informed of aspects of his practice that are statistically variant, some States have followed the practice of sending the profile to the physician with an explanation of the questionable items. It is often quite a surprise for the practitioner to see that he has prescribed, say, Darvocet-N for 78% of his Medicaid patients. (Use of profiles in this fashion in Florida succeeded in reducing the pharmacy cost to the State program by 6% in one year.)

(3) As noted above, S/URS provides profiles for patients as well as physicians. As patients' control over the services they receive is virtually nil, patient profiling is less useful as a management tool than physician profiling. It may be useful, however, for a *physician* to review profiles for his or her patients. This review may reveal to the physician that the patient has received prescriptions for incompatible drugs from another physician, that duplicative treatments are being given, and so on. In these cases, action by the physicians involved will both improve quality of care and reduce program costs.

(4) Local medical societies, in the past, have not had access to the types or volume of information that S/URS can provide. They have had some information, but not on so detailed a statistically analyzed basis. S/URS makes available a complete picture of the therapeutic practices of all health professionals who treat Medicaid patients. The opportunity for developing educational programs, based on S/URS analysis, in areas that might not have previously been considered is obvious. Similar opportunities exist for medical schools, Professional Standards Review Organizations, etc.

(5) Ideally, any requirements placed upon physicians by States beyond those for licensure should aim at further professional education, correction of known deficiencies, etc., and not "shotgun" re-examinations or further bureaucratic requirements. S/URS and S/URS-type analysis can aid State officials in "focussing" professional development requirements on *known* deficiencies.

Fairly recent studies indicate that requiring continuing education in prescribing practices is an obvious place to begin.

(6) It should be noted that S/URS can also serve a *protective* function. In the case where it is asserted that a physician has engaged in poor medical practice in regard to a particular Medicaid patient for instance, S/URS can produce not only the physician's typical pattern of treatment for the diagnosis or diagnoses involved, but also a complete record of the treatment billed for the patient in question. This is compared with the typical pattern of care of physicians in relevant subgroups; thus a complete and thoroughly analyzed record is immediately available. Further questions can be based on facts rather than accusations and defenses.

The list of possible devices whereby S/URS and similar automated review methods can serve the physician community could be continued. The major points to be stressed are these: (a) demands placed on the Federal financing of health care, the Medicaid program in particular, are such that program officials *must* develop such devices; (b) the physician population cannot avoid the effects of the political and social context in which the program operates; and (c) S/URS and similar automated review devices seem to be the best solution to the problems in the Medicaid program for both managers and providers.

Summary

Implementation of automated review of provider practices by the Medicaid program ought to be viewed as worthy of support.

With a sustained automated review effort, one can project that the worst providers will be removed from the program, and that the best are left. Over a long term, this means that pressures on physicians, dentists, and others, should decrease, and calls for further regulation can at least, be mitigated. Active support of automated review efforts may be the best way that providers can ensure that they are subjected to the least possible scrutiny and interference as they continue their delivery of health care to the poor.

Charles MacKay joined the Medicaid Bureau in 1976. He currently works in the Institute for Medicaid Management as a Program Analyst. His responsibilities include training and technical assistance with the Surveillance and Utilization Review Subsystem of the MMIS.

He is a graduate of New College, Sarasota, Florida, and received his M.A. degree from Cornell University, where he is currently a Ph.D. candidate in Social and Political Philosophy, concentrating on the effect of economic structures on policy decisions.

THE LOGIC OF PROFILING

This chapter presents some arguments for the method of profiling used in S/URS -- profiling based on post-payment data, with reporting only of exceptional instances. It is necessary to make the case for the S/URS method because it is not immediately obvious that it is more efficient than the alternatives. Because it is not immediately obvious, profiling systems that are grossly inefficient (relative to S/URS) have been set up. One object, then, is to convince the reader that the most efficient possible methodology, in terms of interference with normal Medicaid practice, is being used. Another is to acquaint readers with alternative systems that they may encounter.

"Profiles" cover a multitude of approaches employed in various State systems -- the Federal regulations are not terribly specific on what a profile must "look like." In fact, all that is specified is that a State Plan for Medical Assistance, under which Medicaid is administered, must include a post-payment review process which allows for the development of provider and recipient profiles. In practice, this has meant that any kind of post-payment data scanning has been accepted as "profiling" in some States. In the most primitive versions in use, the system used simply generates a history of all claims for a certain period, sorted by date and provider or recipient number, and human analysts then pore through these, looking for "something odd." It is an indication of the gross nature of much fraud and abuse that "something odd" invariably turns up. But it is possible to do much more than this at less expense. All profiling

methods however, share the same basic notion.

This basic notion, however, is plain enough. Each Medicaid claim contains a tremendous amount of information -- recipient identification numbers, provider identification numbers, charges, dates of service, locations of service, diagnosis codes, procedure codes and so on. The fact that eacn scrap of information is intended to meet a different need obscures the fact that in the course of its payment operations, a Medicaid program almost of necessity obtains a great deal of information about the practice of the provider. Why not make use of it?

It is somewhat surprising that a computerized analysis of provider practices is not characterized as somehow illegitimate more often than has been the case. For those who raise this charge, a clear advantage of the "investigation-upon-allegation" means of dealing with fraud, abuse, and low-quality care is that ignoring available data means any suspect action by a provider must result in a personal contact. In S/URS, the majority of possible cases of misutilization are rejected by the computer during its analysis or discarded by human analysts based on a desk investigation. Only the potentially most flagrant cases are actually contacted.

There are numerous ways of using billing information to get a picture of provider practice -- one can simply arrange the claims by date of payment, and obtain a crude, although highly detailed,

picture of the provider's program experience over a period of time. The same can be said for recipients -- just a matter of sorting the information a little differently. Even with a "profiling" this crude, certain things will stand out. As one scans the list, does nearly every patient receive an injection? A prescription? What procedures seem most often repeated? Are there billings for hysterectomies on males? The point is: even a "profile" that consists of a list of claims is a means of detecting anomalies in the practice of a provider which may not be apparent upon the examination of a single claim.

(There is enough sense to even this crude approach that "profiling" was mandated by regulations.) The application of more sophisticated surveillance methods is likely to yield greater results. The S/URS process, as embodied in the S/UR Subsystem of the MMIS, is designed to perform that sophisticated surveillance. Doing this, however, requires more specifics about the profiling concept.

The profiles necessary to carry out the S/URS concept, generated by the S/UR Subsystem, are:

1) data summaries;
2) produced only for participants with exceptional program experience, or if specifically requested;
3) produced on a post payment basis;
4) produced by (of necessity) an automated system.

From this point on, reference will be made only to profiles which fit

this definition. There are reasons for each of the four features, and they are important enough to require some discussion.

Why Data Summarization?

The basic reason for using profiles that employ summarized data has been mentioned above -- statistical methods will reveal anomalies that "eyeballing" won't. Such methods do not require that a user of profiles search through mountains of data; all that the user need see is the results. (In those situations where access to detailed information is important, the system can provide it upon demand.) In S/URS, the concern is not with the detection of isolated individual instances of problematic utilization; it is with the discovery of a pattern of utilization that is aberrant over time. Since the focus is on the pattern, there is no immediate need to see the individual bits and pieces from which it was constructed. These bits and pieces are only a beginning, and the failure to employ summarized profiles loses all of the advantages of a quasi-statistical analysis.

Why Post-Payment Review?

A point not stressed earlier is: 42 CFR 450.18 (a) (1) (ii) requires that the State's medical assistance plan "...must include provisions for...a post payment review process that allows for the development of...profiles..." Why? This feature caused a lot of debate during the design of the S/URS, and still raises questions. It appears at first that if program abuses and misutilization are

discovered after payment, recovery of funds will be uncertain, unproductive, and time-consuming. In practice this has not been the case; funds currently due the provider can always be withheld. If S/URS were part of a plan for payment recovery, it would be woefully inefficient, and in clear need of immediate re-design.

If program management has as its principal aim the assurance that no incorrect payment is ever made, it fails; no manager could give such assurance. The Medicaid program, however, operates under a lot of pressures -- and one of them is getting payment to the providers at the earliest possible date. Extensive pre-payment review (which given some minor reprogramming, is entirely possible with the current MMIS-S/URS) could have the effect of delaying some claims for a very long period of time.

Unless it is based on review triggered by anomalous past patterns of care, or upon professionally established norms, pre-payment screening of all claims, beyond a very basic set of edits, makes huge computer, staff, and time demands. There is little reason to think that a past pattern of anomalous care inevitably means that the current single claim before the reviewer is suspect. Some States make an attempt to fit the current claim into the pattern of past claims by an "eyeball" review of the claim's history; this suffers the subjectivity, cursoriness and lack of sophistication cited earlier. One simply cannot expect to have all the demands of program management met by a

prepayment review of all claims. Although it is essential that data going to S/URS be cleaned up by prepayment edits, very much beyond this is simply too much work done for too little reward, and some sort of post-payment review mechanism designed to detect anomalous patterns would still be required.

Prepayment review has a role -- for example, review of claims for unusual or highly expensive treatments, hospitalization above a certain length of stay, etc., can be useful and make a good deal of sense. So does prior authorization of some procedures but a full-spectrum application of medically necessity determinations is not likely to be cost-effective.

A deeper concern motivates the regulatory requirement for post-payment review: worries about quality of care. Medicaid is not interested in payment alone. A very important part of review activity has to do with an assessment of the quality of care that is being purchased. This involves knowing what the provider has done for the recipient, no matter when Title XIX pays for it. Here the successful interaction between pre-payment screens and post-payment profiling becomes critical. An over application of prepayment screens leads to profiles showing not what was done to the recipient, but what the program paid for. This latter information we already have and is of no particular interest. The question is the pattern of medical care that the recipient was actually given. The ideal interaction

between an S/URS effort and pre-payment screens and edits, then, is the exclusion of the immediate, obvious, "eyeball-detectable" problems (such as recipient or provider ineligibility, erroneous payment amounts, noncovered services billed, etc.) from paid claims files from which profiles are generated. And effort beyond this is likely to be inefficient, ineffective, and inimical to the possibility of serious post-payment profiling.

A final point in favor of post-payment profiling is this: It is possible to fraudulently submit a bill, or many bills, with relative ease: it is virtually impossible to fake a pattern of care, involving many patients, over a period of time. Each action of the provider -- a visit, a treatment, an X-ray order, etc., leaves a penumbra of other actions around it. In the case of a normal practice this involves no misutilization or program abuse. This shadow is absent in the case of false billings. Thus, one can expect that eventually, the matter will show up as a statistical anomaly on a profile. This sort of thing can can only be detected by post-payment review. Experience has shown that typically, the use of EOMBs[1] will not serve the same purpose, although it is intended to.

Why Exception-based Reporting? (See Figure 1)

The foregoing covers the logic of post-payment S/URS review, and justifies the regulatory requirement for profile generation on a post-payment basis. Why should profile review and reporting be done on an

exception basis? If one asks, "Exceptions to what?", most of the answer becomes clear.

Figure 1.

S/URS:

--- PRODUCES A PRE-SCREENED SET OF PROFILES WHICH HAVE BEEN COMPARED TO THE AVERAGE PATTERN OF CARE IN THE STATE

--- EMPLOYS, (IF USER WISHES,) EXCEPTION CRITERIA DERIVED FROM THE ACTUAL PATTERN OF CARE IN THE STATE ON AN OBJECTIVE STATISTICAL BASIS

--- PROVIDES PROFILES ONLY FOR RECIPIENTS OR PROVIDERS WHOSE MEDICAID EXPERIENCE IS STATISTICALLY EXCEPTIONAL

--- MAKES USE OF PROFILES FOR UTILIZATION REVIEW A MANAGEABLE PROCESS

--- CAN PRODUCE A PROFILE FOR ANY PARTICIPANT UPON REQUEST

It is safe to assume that most providers are competent, and it is equally safe to assume that they do not provide lesser care (in terms of medical competence, at least) to Medicaid patients than they do for private patients. This means that our interest ought to focus only on the anomalous case, even if staff and fiscal limitations could be ignored. To operate a review effort efficiently, we need some means of locating those providers whose practice patterns are exceptional when compared to some ideal pattern of care. The S/URS allows the majority of Medicaid providers to dictate it. Thus, those who are exceptional in S/URS are those whose practice patterns are exceptional when compared to the behavior of their peers.

In S/URS, exceptions criteria are derived from and continually adjusted based upon the program behavior of the group into which the provider logically falls. One would expect that comparing a neurologist against norms developed from the behavior of GPs would not be revealing. S/URS is designed to compare not only neurologists with neurologists, but neurologists operating under an identifiable set of circumstances with those operating in similar circumstances.

The process will be explained later: the important thing to note is that the program experience of a provider's comparable peers is the norm against which the individual provider's profile is evaluated. The provider is subject not to standards arbitrarily imposed by the State agency but to a jury of his peers, who update their "judgement" every

time they file a claim.

It is implicit in this approach that, since normal provider behavior forms the standard, most providers will in fact conform because the standards are automatically set by them. Investigations should be targeted where there is a high probability of finding serious situations actually requiring correction. This is what S/URS does: it pinpoints instances of probable misutilization.

Detection of the instances in which misutilization is likely, while central to the system, cannot be of any value unless the State has committed the necessary staff for investigation and correction of the problems uncovered. In addition, there must be willingness to take the actions necessary once the investigation conducted shows that there has, in fact, been misutilization.

S/URS, properly used, offers the chance for program management at the "micro" level -- by correcting specific instances of misutilization as they happen -- rather than at the "macro" level, by program cutbacks and increasing regulation. As the first chapter points out, this is by far the more desirable alternative.

Despite the very high analytical capacity of S/URS, it should not be forgotten that the system can only produce information for human use. Further, the system works on a wholly mathematical basis: it can make no subjective judgements, and the degree to which the profiles excepted

for human review reflect reality depends solely on the capacity of statistical analysis to reflect that reality. For this reason, the S/URS unit should have capabilities for scrutinizing profiles before an investigation is based on them.

In addition to the "Garbage In, Garbage Out" problem that S/URS shares with every other computer system, statistical methods can occasionally produce false positives to be dealt with. Some of the profiles that apparently represent serious abuses will in fact be fools' gold. Among the reasons for this are some of the averages that S/URS calculates are simple arithmetic means. Arithmetic averages are highly susceptible to distortion because of extreme values. One or two highly exceptional patients can produce an exception on a provider whose practice is in all other respects near normal. Conversely, the standard deviation employed, if it is large in comparison to the range of values of the item being analyzed, can "mask" exceptions[2] producing false negatives. Truly exceptional situations can fall below the exceptions criteria established with the use of the standard deviations, and thus not be reported. The system contains a manual limit-setting facility to overcome this difficulty. It is also worthy of note that these statistical foibles are not peculiar to S/URS -- they are the problems that occur in any analysis using the same methods.

Here, the importance of the S/URS staff is most clearly seen. There must be an interface between machine-reported exceptions and the provider, and the lay and medical analysts associated with the

properly set-up S/URS unit provide it. The task of these analysts is twofold: one, to screen out any excepted profiles that appear to have excepted solely due to statistical anomalies, and to screen out those which, despite being exceptional, in fact represent the normal vagaries in medical practice. It is only after this step is taken that investigation should begin. The interaction of lay and medical analysts in the unit and the program staff is crucial. In the early days of an S/URS operation, a number of decisions have to be made regarding class group definitions, control limits, etc. Lay experts with a modicum of statistical expertise and medical personnel with a good understanding of "normal" medical practice are needed, both in profile generation and in analysis.

Investigation may consist of a desk review of claims, supported by the S/URS capability of delivering, in addition to profiles, complete statistical analyses of the provider's pattern of practice by diagnosis and age group, and a complete listing of claims details. It may also consist of a field review, if this is necessary.

As a result of the reviews and investigation, the provider may be dealt with in numerous ways. Of course, no further action will be taken if no real problems have been found. S/URS can tell us no more than that a provider's experience is statistically exceptional; after that, human beings must take over the work. They can do so, however, with the assurance that uncounted man-hours have been saved

by the use of S/URS, hours that would otherwise have been spent in random searches that might have passed over problems completely.

NOTES

1 An Explanation of Medical Benefits (EOMB) is a report to the recipient, sent after a service(s) has been received, advising what the program has paid for. The recipient is asked to contact a State Program office if the EOMB is incorrect.

2 This applies even to the data items that are "averages of averages" although the distorting effects are of course lessened.

S/URS IN OPERATION

S/URS IN OPERATION

This chapter serves a particular purpose: an initiation into the actual processing operations that are involved in the production of profiles in S/URS. Medicaid staff who have been involved in training sessions for executive-level personnel associated with S/URS have again and again found that "yes, but what does it do?" remains a nagging question after more theoretical aspects of the system have been discussed. This chapter is designed to acquaint the reader with the "button-pushing" aspects of a typical S/URS unit, as well as to acquaint the reader with the way "real-world" contacts between provider and patient are translated into fully analyzed profiles.

Figure I represents a simplification of the usual S/URS flow chart. The more technical details can be left to those who delight in such things; all the information necessary to understand the basic processing operation is in Figure 1.

The first step towards obtaining profiles is the accumulation of totals data -- such as that shown in Figure 2. It should be noted that while the numbers used are real, and in fact are derived from the midsummer 1976 S/URS runs of several States, the format is highly simplified. This need not concern the reader as format varies from State to State in any case. The purpose of collecting the totals is to allow for the Class Group Profiles[1] for the group of providers involved, and to allow for the calculation of exception limits.

PROFILE GENERATION PROCESS (S/URS)

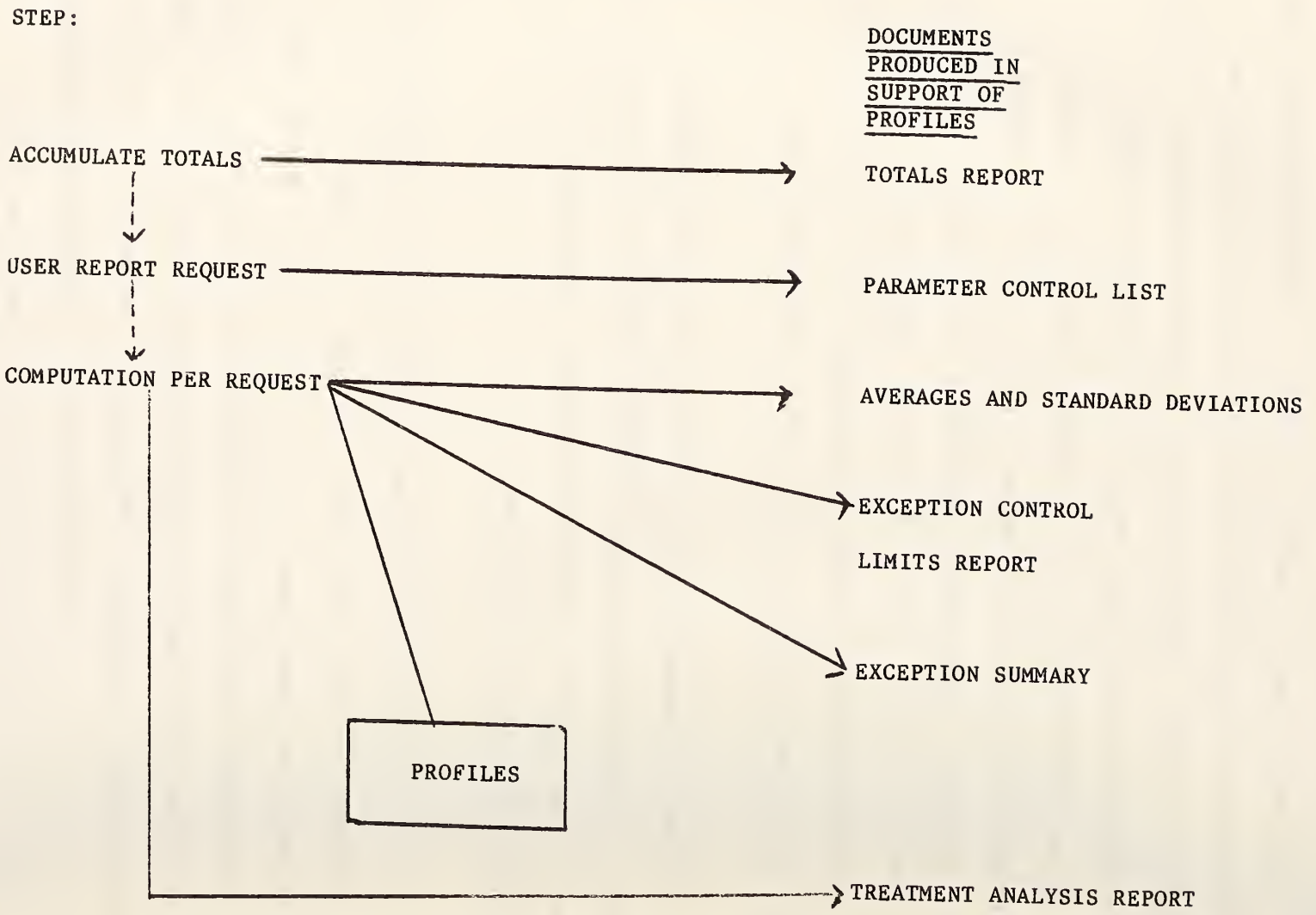


Figure 1

Figure 2

TOTALS/URBAN GENERAL PRACTICE

(FOR SERVICES TO DATE AS OF 1 QUARTER AGO)

ITEM:	
NUMBER OF ACTIVE PROVIDERS	1,546
TOTAL NUMBER OF RECIPIENTS SERVED	91,065
TOTAL AMOUNT INVOICED	$2,649,634
PAYMENTS FOR MEDICAL VISITS - OFFICE	$1,386,183
PAYMENTS FOR SURGERY - TOTAL	$ 178,878
NUMBER OF MEDICAL VISITS - HOSPITAL	9,178
NUMBER OF CONSULTATIONS	3,895
NUMBER OF ANALGESIC RX	50,912

The totals are those of service units, dollars, days, etc., from each provider; these are totaled to obtain a number for all providers in the group. We can use whatever descriptive terms ("parameters") we are interested in to picture the practice of the providers. Examples of parameters are: number of injections, number of office visits, number of total days of institutional stay by level of facility, number of recipients served, whatever. The system produces a print-out of the totals both for manual manipulation, if desired, and as a check on further computations. The totals themselves, if unreasonable, also serve a surveillance function.

Figure 3 shows, again in simplified form, the Parameter Control List. Here the system displays the ways in which it has been instructed to define and calculate each item. For example, the item "Average Visits/Recipient" is defined, and calculated as, the total of "Recipients with Office Visits" plus "Recipients with Hospital Visits" plus "Recipients with Home Visits" divided by the total recipients served. All other items are defined in this way. The parameter control list also provides detail on the number of standard deviations used as the Exception Control Limits[2]. The Parameter Control List serves, basically, as a check on the further operation of the system Here the system tells the user, "This is what I heard you tell me to do -- right?" If it is, the system is advised to proceed to the next step -- the calculation of averages and standard deviations.

PARAMETER CONTROL LIST

URBAN GENERAL PRACTICE

ITEM INDEX	ITEM TITLE	DEFINITION	STD. DEVS. FOR PROFILE
01	TOTAL RECIPS SERVED	01	2.0
02	TOTAL DOLLARS PAID	02	2.0
03	AVG. PMT. PER RECIP	02/01	2.0
04	RECIPIENTS WITH OFFICE VISITS	04	2.0
05	RECIPIENTS WITH HOSPITAL VISITS	05	2.0
06	RECIPIENTS WITH HOME VISITS	06	2.0
07	AVG. VISITS/RECIPIENTS	04+05+06/01	3.0

Figure 3

Mathematical details, for those interested, are given in Appendix I; it will suffice to say here that the average is the simple arithmetic mean, and the standard deviation is a measure of variation around the average. These two figures permit us to say that "The average physician saw 250 recipients per month last year, and the average physician deviates from the average by plus or minus 50 patients". Mathematically, at least, this is not a paradoxical statement.

The importance of these two figures lies in the fact that they are combined to arrive at the exceptions criteria. The average gives us the central tendency of provider performance; the standard deviation can be used to define an acceptable range of variation in practice. The production of a print-out at this point is a device whereby the user can detect any system problems that have arisen, rather than going to the expense of an entire run. Referring to Figure 4, the average visits per recipient is shown as 1.94 and the standard deviation is 1.51. Given certain assumptions about the distribution of the provider practices[3], it will be the case that 95% of the physicians will fall between (in this example) 0 and 4.96 visits per recipient, on average; thus, if the Exception Control Limits are set at two standard deviations, (which is the limit the classical S/URS uses unless told otherwise) only those physicians with an average number of visits per recipient of 4.97 or greater will be deemed "exceptional"[4]

Figure 4

AVERAGES & STANDARD DEVIATIONS

URBAN GENERAL PRACTICE

REPORT ITEM TITLE	FOR SERVICES RENDERED TO DATE AS OF ONE QUARTER AGO	
TOTAL DOLLARS PAID	AVG.	$1,479.48
	S.D.	$4,821.00
TOTAL RECIPIENTS SERVED	AVG.	58.90
	S.D.	164.69
AVERAGE PMT. PER RECIPIENT	AVG.	$ 26.94
	S.D.	$ 26.47
TOTAL MEDICAL VISITS	AVG.	106.68
	S.D.	320.16
AVERAGE VISITS PER RECIPIENT	AVG.	1.94
	S.D.	1.51

The average and standard deviations are recalculated from paid claims data with each run. Thus, the norms that S/URS applies are dynamic. Unless a manual intervention is made, the provider is always compared to the standard set by his peers in the same time period. The problems attendant upon deciding what constitutes acceptable practice in each case are entirely obviated.

Figure 5 shows the Exception Control Limits Report. The charts in Appendix 2 show the typical items that were generated in mid-1976 from four States. As can be seen from the footnotes, it is possible and sometimes necessary to manually set exception control limits by entering a number -- in Figure 5, $15,000 has been entered. Regardless of the actual provider performance in this case, only those providers with a total payment amount of $15,000 or over would have profiles generated[4]. Again, the production of a print-out at this point is a systems control device permitting the user to stop the program if the figures indicate that errors are occurring or the results will be unreasonable.

The final step before the actual production of excepted profiles is the generation of the Exception Summary (Figure 6). This is a device whereby the number of profiles that the system will actually print can be controlled. While the number of investigations undertaken should never be tailored to staff (the reverse, in fact, is the ideal), any profile that is excepted will require some human staff

Figure 5

EXCEPTION CONTROL LIMITS

URBAN GENERAL PRACTICE

REPORT ITEM TITLE	FOR SERVICES RENDERED TO DATE AS OF ONE QUARTER AGO	
TOTAL DOLLARS PAID	LOWER	$1500
	UPPER	$15,000
TOTAL RECIPIENTS SERVED	LOWER	100
	UPPER	1000
TOTAL MEDICAL VISITS	LOWER	0
	UPPER	747
MAXIMUM VISITS IN ONE DAY	LOWER	0
	UPPER	45

Figure 6

EXCEPTION SUMMARY

URBAN GENERAL PRACTICE (1546 PROVIDERS)

REPORT ITEM TITLE	FOR SERVICES RENDERED AS OF ONE QUARTER AGO		
		NO. OF EXCEPTIONS	% OF PROVIDERS
TOTAL DOLLARS PAID	LOWER	284	14
	UPPER	25	1
TOTAL RECIPIENTS SERVED	LOWER	211	7
	UPPER	10	1
AVG. NO. OF IN-HOSPITAL VISITS	LOWER	0	0
PER RECIPIENT	UPPER	5	0
RATIO OF INJECTIONS TO RECIPIENTS	LOWER	0	0
	UPPER	8	0

time. It is pointless to wade through profiles that in fact indicate normal practice and were produced only because the system was allowed to set exception control limits too low. As a device for controlling volume and cutting operating costs, the program allows for limiting the number of exceptions at this point. This can be done either by stopping the program and limiting the profiles printed out to only those providers who exceed a certain dollar and/or recipient volume. Charts 1-34 (Appendix 2) indicate that for most items, a well-tuned system will produce profiles for around 1-2% of the total providers. In most States, this will be a volume that can be easily handled and will allow for serious review and investigation to be undertaken.

Then, at last, we get the profiles. Figure 7, "Report Item Data Relationships", represents, in the first four columns, a typical profile. Figures 8-10 give some examples of profiles. The starred items represent exceptions. We use the simplified profiles and then show the "real" one to illustrate that the only forbidding aspect is the format. The system itself, although one of the most sophisticated large-scale devices for the analysis of medical practice ever attempted, operates in a comprehensible fashion. This is, of course, a characteristic of computers: They can do no more than count on their fingers and toes -- their capacity lies simply in having many more fingers and toes than we do. S/URS is right in this tradition.

The last item produced in conjunction with exception-based profiles is the Treatment Analysis Report. This is intended to support

REPORT ITEM DATA RELATIONSHIPS

ITEM TITLE	TOTAL	AVERAGE	STANDARD DEVIATION	EXCEPTION CONTROL LIMIT (UPPER)	NUMBER OF EXCEPTIONS	% OF PROVIDERS WITH EXCEPTIONS FOR THIS ITEM
TOTAL RECIPIENTS SERVED	91,065	58.90	164.69	1,000	10	1
TOTAL AMOUNT PAID	$2,287,276	$1,479.48	$4,821.01	$15,000	25	1
TOTAL MEDICAL VISITS	145,832	106.68	320.16	747	0	0
AVG. NO. OF PROCEDURES	4,153	9.11	32.39	73	0	0
MAX. VISITS IN ONE DAY	7,585	5.80	10.04	45	16	1

Figure 7

SUMMARY PRACTICES [illegible] PROVIDER
[illegible] 42
FOR [illegible] 1974
[illegible] GROUP: 01

IDENTIFICATION SECTION
NAME: PROVIDER NUMBER 0020908 COUNTY: 25 SPECIALTY: 01 SPECIALTY: 01 SIZE:
NUMBER: 0020908 TYPE: 22 CONTROL: 2 SERVICES: 40,20 EXCEPTION: 0 GROUP NUMBER:
FISCAL YTD TOTAL PAYMENTS: 9,727.80 FISCAL YTD CROSS ADJUSTMENTS: 0.00

NO.	REPORT ITEM/SECTION TITLE	CLAIMS PAID THIS MONTH	PDR SVC IN AVG. QTR	FOR SERVICES THIS QTR	RENDERED TO DATE AS OF: 1 QTR AGO	2 QTRS AGO	3 QTRS AGO	4 QTRS AGO	TREND RATE
01	MASTER EXCEPTION CONTROL SECTION								
01	TOTAL DOLLARS PAID	1302	3439	1311	4490	2051	3502	3687	+2.7
02	TOTAL NO OF RECIPIENTS SERVED	20	51	16	50	36	62	58	-9.7
02	RECIPIENT VOLUME SUMMARY SECTION								
01	NO OF RECIP - MEDICAID ONLY	20	50	16	50	33	61	57	-9.7
02	NO OF RECIP - MEDICARE CLAIMS	0	1	0	0	3	1	1	+8.0
03	FINANCIAL SUMMARY SECTION								
01	TOTAL AMOUNT CHARGED	1422	3599	1421	5407	2281	3804	4065	+6.4
02	AMT PAID - MEDICAID DIRECT	1302	3432	1311	4490	2039	3486	3676	+2.9
03	AMT PAID - MEDICARE CROSSOVERS	0	0	0	0	12	16	11	-37.9
04	AVG PAYMENT PER RECIPIENT	69.10	68.11	81.56	89.800	61.790	57.15	64.49	+11.7
05	TOTAL AMTS PDR SVCS CROSSED	1087	2720	2210	2604	2644	4034	5561	+26.6
07	PERCENT OF CHARGES PAID	97.19	89.26	80.28	83.04	89.02	92.06	90.70	-2.8
04	SUMMARY OF MEDICAL VISITS SECTION								
01	TOTAL NO OF MEDICAL VISITS	10	32	9	29	29	37	61	-30.6
02	PERCENT OF AMTS PDR VISITS	7.33	14.06	7.70	6.06	12.90	20.17	13.58	-31.0
03	NO OF OFFICE VISITS	9	28	9	27	23	49	61	-32.0
11	NO OF IN-HOME VISITS	1	3	0	1	0	8	0	-22.2
14	NO OF OUT-PDR VISITS	0	0	0	0	2	0	0	+40.0
21	PERCENT INITIAL VISITS-OFFICE	44.44	78.139	55.55	25.93	52.17	97.960	95.080	-37.3
24	NO OF CO-SULTATIONS	0	0	0	3	0	0	0	+120.0
05	SUMMARY OF DIAGNOSTIC SERVICES RENDERED								
09	NO OTHER DIAGNOSTIC PROCEDURES	2	3	1	4	2	2	0	+60.0
11	RATIO OTHER DIAG PROC/VISITS	.20	.09	.11	.14+	.08	.04	.00	+79.4
06	SUMMARY OF SURGICAL SERVICES RENDERED SECTION								
01	NO OF SURGICAL PROCEDURES	10	21	10	25	12	23	24	-9.8
03	PERCENT RECIP RECEIVING SURG	50.00	37.81	62.50	48.00	33.33	32.79	36.84	+9.0
07	INPATIENT HOSPITAL SERVICES ORDERED SECTION								
01	NO OF HOSPITAL ADMISSIONS	6	15	6	11	12	19	21	-23.2

PHYSICIAN, URBAN GENERAL PRACTICNER, RECEIVING $10,000 FROM MEDICAID IN 9 MONTHS AND SEEING ABOUT 50 MEDICAID PATIENTS IN A QUARTER. HAS HIGH AVERAGE PAYMENTS PER RECIPIENT AND AS MANY AS 98 OF HIS OFFICE VISITS ARE INITIAL VISITS PAID AT THE HIGHER RATE.

Figure 8

CLASS GROUP: 01

IDENTIFICATION SERVICE:
TAX ID #: [illegible] OR NO DEF 0000100 COUNTY: 03 PRACTICE: 01 SPECIALTY: 01 TITLE:
PROVIDER ID: 0100 TYPE: 22 CONTROL 2 SERVICES: $2,320 EXCEPTION: 0 GROUP NUMBER:
FISCAL YTD TOTAL PAYMENTS: 42,346.10 FISCAL YTD GROSS ADJUSTMENTS: 0.00

NO.	REPORT ITEM/SECTION TITLE	CLAIMS PAID THIS MONTH	FOR SVC IN AVG. QTR	FOR SERVICES RENDERED TO DATE AS OF: THIS QTR	1 QTR AGO	2 QTRS AGO	3 QTRS AGO	4 QTRS AGO	TREND RATE
	01 MASTER EXCEPTION CONTROL SECTION								
01	TOTAL DOLLARS PAID	6111	14478@	5392@	18895@	14874@	7337@	17108@	+8.2
02	TOTAL NO OF RECIPIENTS SERVED	232	424@	231@	521@	475@	272@	467@	+8.4
	02 RECIPIENT VOLUME SUMMARY SECTION								
01	NO OF RECIP - MEDICAID ONLY	234	420	231	499	466	262	453	+8.1
02	NO OF RECIP - MEDICARE CLAIMS	10	14	0	22	10	10	14	+17.1
	03 FINANCIAL SUMMARY SECTION								
01	TOTAL AMOUNT CHARGED	6857	15168	5407	19489	15631	7692	17762	+8.6
02	AMT PAID - MEDICAID DIRECT	5924	14222	5392	18730	14761	7182	16568	+9.1
03	AMT PAID - MEDICARE CROSSOVERS	227	226	0	212	113	155	541	-39.8
04	AVG PAYMENT PER RECIPIENT	25.15	33.06	23.34	36.83	31.83	27.41	36.57	+1.5
05	TOTAL PMTS FOR SVCS ORDERED	7131	24163	3169	19097	20582	19225	37769	-22.6
07	PERCENT OF CHARGES PAID	69.12	93.51	98.27	95.41	95.16	95.38	96.22	-0.3
	04 SUMMARY OF MEDICAL VISITS SECTION								
01	TOTAL NO OF MEDICAL VISITS	426	1119	600	1453	1238	532	1259	+11.4
02	PERCENT OF PMTS FOR VISITS	72.26	77.52	34.02	73.12	62.44	73.15	75.45	+2.3
04	MAXIMUM VISITS IN ONE DAY	0	40@	33@	47@	47@	30@	37@	+11.6
08	NO OF OFFICE VISITS	426	1118	400	1453	1233	532	1256	+11.5
10	MAX OFFICE VISITS IN ONE DAY	0	40@	33@	47@	47@	30@	37@	+11.6
11	NO OF IN HOSP VISITS	0	0	0	0	0	0	3	-120.0
22	RATIO INJECTIONS:OFFICE VISITS	.02	.02	.02	.03	.03	.03	.01	+21.1
	05 SUMMARY OF DIAGNOSTIC SERVICES RENDERED								
01	NO OF PATHOLOGY PROCEDURES	0	1@	0	1	1	2	56	-109.5
05	NO OF DIAGNOSTIC RAD PROC	91	141	79	205	128	104	208	+1.5
06	RATIO DIAG RAD PROC:RECIP	.39	.33@	.24	.42@	.27@	.40	.46@	-6.4
09	NO OTHER DIAGNOSTIC PROCEDURES	2	1	0	0	1	6	13	-40.0
	06 SUMMARY OF SURGICAL SERVICES RENDERED SECTION								
01	NO OF SURGICAL PROCEDURES	12	21	11	33	38	3	11	+47.5
02	RATIO SURGICAL PROC:RECIPIENTS	1.20	1.70	1.10	1.97	2.11@	1.50	1.22	+10.3
03	PERCENT RECIP RECEIVING SURG	4.27	2.93	4.33	4.21	3.06	.76	1.99	+30.0

-42-

Figure 9

HIGH VOLUME PHYSICIAN, URBAN GENERAL PRACTIONER, ($42,000 FROM MEDICAID IN 9 MONTHS). SEES AS MANY AS 46% OF PATIENTS RECEIVING DIAGNOSTIC RADIOLOGY PROCEDURES. THIS PHYSICIAN GENERATES AS MANY AS 5796 PRESCRIPTIONS IN A QUARTER - COSTING AS MUCH AS $67.00 PER RECIPIENT.

SUMMARY PROFILE REPORT: PROVIDER
CATEGORY OF SERVICE: 30
ASK REPORT FOR PERIOD 1974
CLASS GROUP: 05

IDENTIFICATION SECTION
NAME: PROVIDER NUMBER 0119044 COUNTY: 23 PRACTICE: 01 SPECIALTY: SIZE:
NUMBER: 0119044 TYPE: 70 CONTROL: 2 SERVICES: 30,32 EXCEPTION: 0 GROUP NUMBER:
FISCAL YTD TOTAL PAYMENTS: 101,385.19 FISCAL YTD GROSS ADJUSTMENTS: 0.00

NO.	REPORT ITEM/SECTION TITLE	CLAIMS PAID THIS MONTH	PER SVC IN AVG. QTR	FOR SERVICES RENDERED TO DATE AS OF: THIS QTR	1 QTR AGO	2 QTRS AGO	3 QTRS AGO	4 QTRS AGO	TREND RATE
01	MASTER EXCEPTION CONTROL SECTION								
01	TOTAL DOLLARS PAID	11094	$19996	4091	$36869	$31630	29975	29824	+6.8
02	TOTAL NO OF RECIPIENTS SERVED	444	483	272	516	529	511	376	+9.0
02	RECIPIENT VOLUME SUMMARY SECTION								
01	NO OF RECIP - MEDICAID ONLY	443	433	272	516	529	510	375	+9.1
03	FINANCIAL SUMMARY SECTION								
01	TOTAL AMOUNT CHARGED	14754	40315	5484	44880	36522	36916	39925	+4.3
02	AMT PAID - MEDICAID DIRECT	11830	31971	4091	36569	31630	29942	29745	+6.9
04	AVG PAYMENT PER RECIPIENT	26.79	66.25*	17.98	70.87*	59.79*	58.66*	79.32*	-3.6*
05	AVG PAYMENT PER RX	3.60	3.97	4.35	4.01	3.96	3.92	3.99	+0.2
06	AVG PAYMENT PER RX TO SNF	3.00	3.78	4.32	3.99	3.93	3.92	3.78	+1.7
07	PERCENT PMTS FOR PROF FEE	44.23	43.69	40.21	43.67	44.17	44.56	43.19	+0.2
04	SUMMARY OF DRUGS DISPENSED SECTION								
01	NO OF RX FILLED	3051	8028	1123	9115	7996	7643	7468	+6.5
02	AVG NO OF RX PER RECIPIENT	6.87	16.66*	4.14	17.66*	15.12*	14.96*	19.86*	-3.8
04	PERCENT COMPOUNDED RX	.1*	.3*	.0*	.0*	.2*	.4*	.7*	-70.0
05	AVG NO OF RX PER SNF RECIPIENT	6.90	13.36	4.14	15.10	14.92	13.68	3.61	+30.1
07	PERCENT RECIP WITH ADDICT. RX	2.93	5.49	2.94	6.49	4.35	6.07	5.05	+4.2
08	AVG NO ADDICTIVE RX PER RECIP.	1.00	3.69	1.09	3.21	2.06	1.68	2.93	+7.6

Figure 10

HIGH VOLUME GENERAL PHARMACY ($101,385.19 IN 9 MONTHS. AN AVERAGE OF 483 MEDICAID RECIPIENTS EACH QUARTER OR $10,866.33 PER MONTH). IN ONE QUARTER, THE PHARMACY SERVED 516 MEDICAID RECIPIENTS FOR AN AVERAGE OF $71.00 AND 17 PRESCRIPTIONS EACH. THIS HAS HAPPENED CONSISTENTLY. IN THE AVERAGE FOUR QUARTERS PHARMACY SERVED 483 RECIPIENTS FOR AN AVERAGE PAYMENT OF $65.00 AND 16 PRESCRIPTIONS EACH.

the lay and medical review of the profiles produced, or because it can be produced on an exception basis, as an alternative profile, aimed at patterns of care organized by diagnosis. This report gives a complete breakdown of the procedures and treatments for which a provider has filed claims, organized by diagnosis code and age of the recipients involved. The Treatment Analysis Report gives a complete statistical picture of the response of the provider when confronted with a specified medical condition, in a recipient of a specified age. It offers easier access for medical reviewers to the provider's normal standard of practice than the profile does, and thus may serve to eliminate the need for field investigation.

One last point must be made about the use of these documents. The profile is the central one, and offers a basis for either the decision that a particular provider's or recipient's experience, though statistically deviant, is explained by conditions surrounding the practice, or for further steps in the process. The supporting documents -- displaying totals, averages, standard deviations, and so on -- provide either a check on the validity of profile data or a means of system control.

The result obtained by using S/URS is post-payment, exception-based, summarized data about utilization and the provider/recipient interaction level. If the system is used as intended, in a manner supported by common sense and sound medical judgement, control of

truly exceptional utilization is within reach, and State resources are concentrated where they are most needed - in the area of recipient and provider misutilization.

NOTES

1 The Class Group Profile shows the pattern of practice of the group from which the norms employed are derived. It is useful in checking the reasonableness of the Class Group definition used. Some common-sense Class Group definition (e.g., some of those by specialty where a small number of physicians practice the specialty in scattered locations) prove useless for producing valid exceptions. The Class Group Profile allows a medical analyst to look at this "average doctor in the group" pattern and decide whether the Class Group definition used makes sense or not.

2 For a definition of the s.d. in mathematical terms, see Appendix 1.

3 See Appendix 1 for a discussion of this point.

4 Regarding the lower control limit, see Appendix 1.

APPENDIX 1

Statistics in S/URS

In addition to the somewhat forbidding appearance of profiles themselves, the use of statistics in S/URS methodology is something that some find intimidating. The image of the State S/URS unit that is created is apparently that of a group of gnomes, producing reams of arcana that neither providers nor others in the administrative area can comprehend.

Aside from the fact that statistics as a management tool depend far more on common sense, intuition, and a good book of tables than upon higher mathematics, the statistical methodology of S/URS is at the most elementary level possible. It involves only the calculation of two figures: averages and standard deviations.

The average use is the simple arithmetic mean: e.g., the mean of the integers 0-9 is 4.5, and the mean number of injections per office recipient in June 1976 for Urban General Practitioners in Ohio was 0.83; the principle involved is exactly the same. ("Add them up and divide.") The standard deviation is a measure of the degree of variation in the sample or population being considered. (As S/URS analyzes all data for all physicians in the class group, this is the actually standard deviation of the population.) A large standard deviation, relative to the average, means that there is a great deal of variation in the population; a small one, again relative to the average, means that there is less.

There are many intuitively useful ways of considering variation about an average; taking an arithmetic average of the variations won't work because the algebraic sum of deviations from the average is always zero; this would make the average deviation inevitably zero unless some expedient were adopted. One possible choice is to ignore the algebraic sign in all instances in which the deviation figure being considered (the value of an item in the population, minus the average) is less than zero. Thus, if the item for which we want the deviation from the average is 0.76 and the average is 0.83, the value of that item is 0.76 - 0.83 = - 0.07. Ignoring the sign means treating it as 0.07. Mathematically, this is written as /-0.07/= 0.07; the positive value is called the absolute value. The average of the absolute values of deviations from the means is called the average deviation.

The absolute value function, however, is very hard to manipulate mathematically. A way to get the same result that is far easier to manipulate is to take the quadratic mean of the deviations. The quadratic mean of a group of numbers is the square root of the average squared number. It is written: $Mq = \sqrt{E(X)^2/N}$ where "E" is read as "the sum of." Similarly, then, the standard deviation is calculated by:

$$S = \sqrt{\frac{E(X - Avg.)^2}{N}}$$

It is the square root of the squared average of the deviation from the population mean.

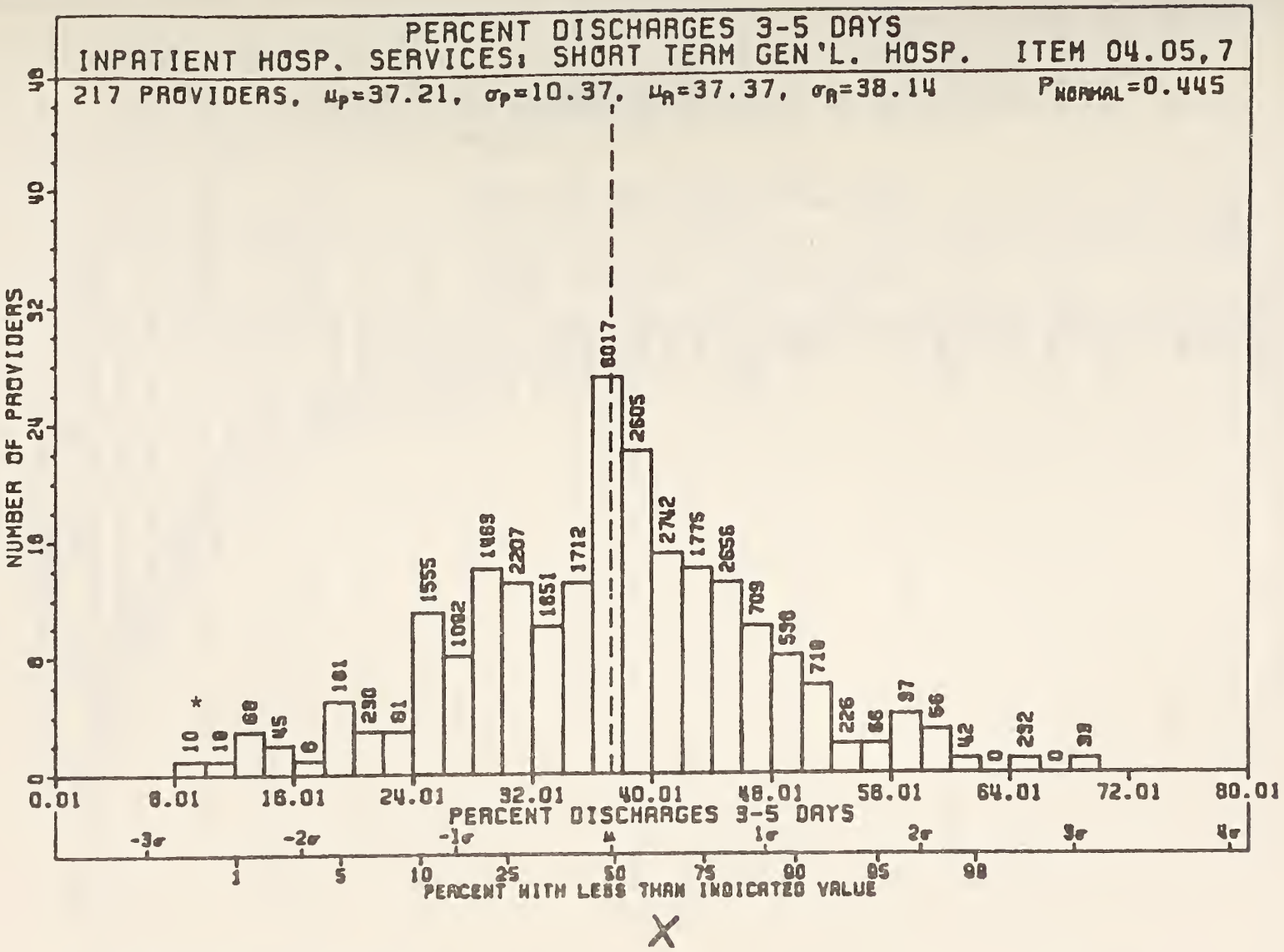
This figure turns out to have important relationships with other aspects of statistics. In particular, there are two that relate to the practical operation of the S/URS unit: Chebycheff's Inequality and the exponential curve. One of the decisions that must be made in the operation of an S/URS unit is the number of exceptions to generate which will allow for a thorough resolution of each one. This means that there must be some way of setting the parameters on the computer so that no more exceptions than the number that has been decided upon are generated. Otherwise, human time must be spent wading through them to find the "juicy" ones, and the value of exception-based processing is wholly or partially lost.

One method, a rough and ready one, is Chebycheff's Inequality. This states that the number of exceptions that will be generated with a parameter setting of t standard deviations for a particular data item is no more than $(1/t^2 \times 100)$ percent of the total providers in the population. If one wants no more than 25 exceptions on a particular item, and one knows that there are 426 providers in the population, one knows that one wants no more than 5.87% of the population excepted on that item. The equation becomes: $5.87 = 1/t \times 100$. Solving for t (with a pocket calculator), we get $t = 4.13$ standard deviations. This is a high number, and in the normal course of an S/URS operation no control limit would be set this high. In practice, however, when the average and the standard deviation are close (the average as a % standard deviation, or coefficient of variation, approaches 100) there

is the possibility of still getting a flood of exceptions even with the control limit set at 3-4 standard deviations. This is particularly true of volume items, such as total dollars paid, etc., which is one reason why the technical handbook for the system, S/URS Operational Techniques, advises that exception processing concentrate on ratio items such as number of injections per office visit.

Unavoidably, a word of explanation about frequency distribution is required here. A frequency distribution tells how many times a value, or range of values, occurs among a group of values or ranges of values. For example, many biological data - heights, weights, and so forth - show a normal (or Gaussian or "Bell-curve") distribution, of which Figure 1 is a close approximation. There, y is the number of people having a certain value of a characteristic (say, inches of height) and x is the value itself.

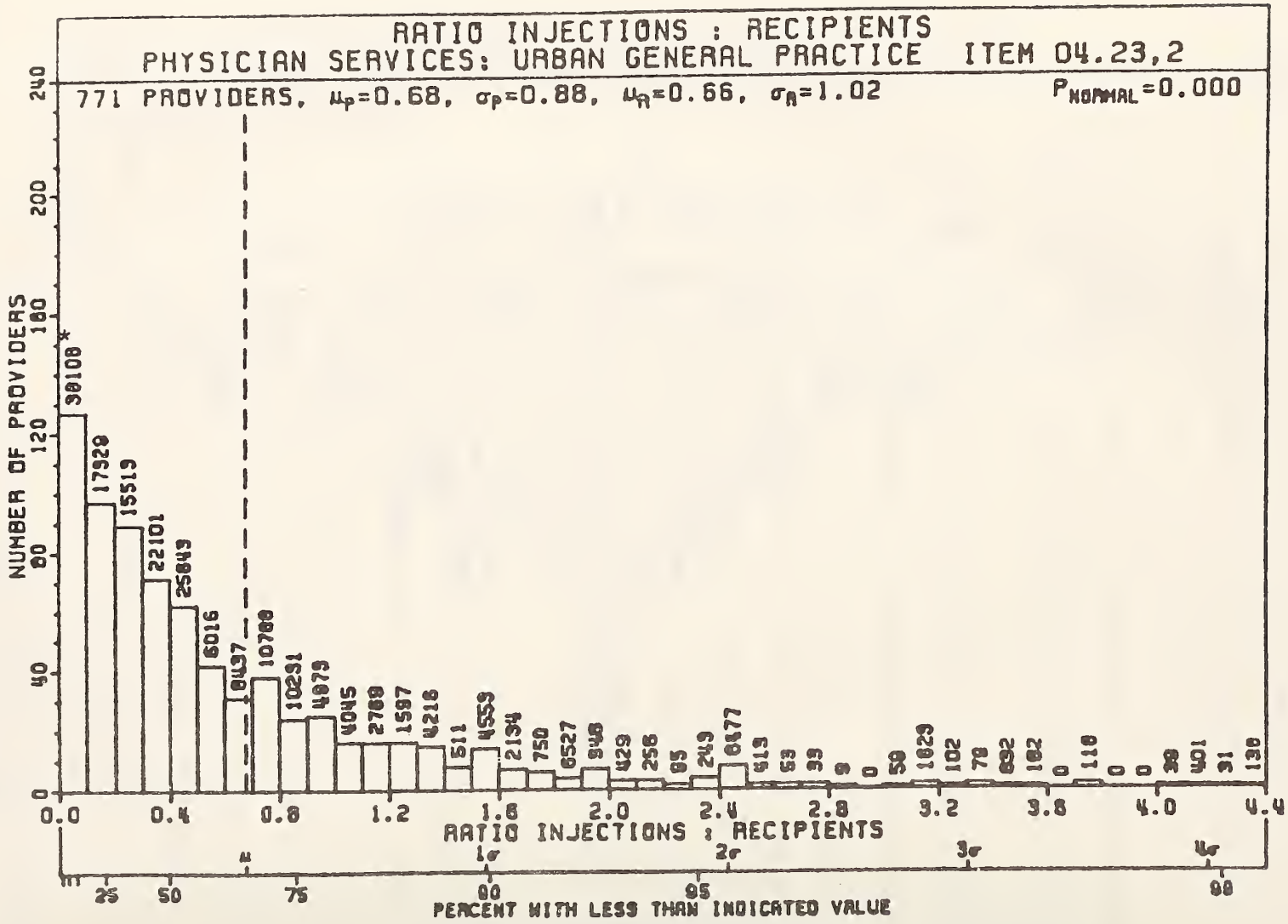
In the original S/URS design, it was assumed that most data items related to medical practice would display such a distribution. In fact, as a recent research project by MMB has shown, they don't. For 332 data items plotted, only one - "Percent Discharges at LOS 3-5 days, Short-term General Hospitals," showed anything like the normal distribution. (See Figure 1). Most plots looked like Figure 2, which (roughly) approximates a graph of another kind of distribution called the exponential distribution.



* TOTAL NUMBER OF DISCHARGES

NUMBER OF DISCHARGES OF RECIPIENTS WHOSE STAYS FALL WITHIN INSTITUTIONAL STAY RANGE 3 (3-5 DAYS). DIVIDED BY TOTAL NUMBER OF DISCHARGES. EXCLUDES RECIPIENTS WITH MEDICARE.

Figure 1



* TOTAL NUMBER OF RECIPIENTS INVOLVED

INJECTIONS ARE COUNTED ONLY IF ADMINISTERED IN OFFICE. RECIPIENTS WHO ALSO HAVE MEDICARE ARE NOT COUNTED.

Figure 2

This seemingly quite technical point has considerable methodological importance. It means that the running of exceptions against lower exception limits will almost always "catch" a large number of providers at the lower end of the scale. As can be seen from looking at Figure 2, a number of such "exceptions" will be quite close to the average; in all likelihood they will represent only fictitious anomalies. As a result of this, it seems sensible to recommend abandoning processing exceptions on lower control limits except for those items which are normally distributed, or approximately so.

(Following the reasoning to the effect that too little medical care utilization could be as bad as too much, S/URS was originally designed to identify both under and over-utilization. The frequency distibutions seen on most items tend to confirm the intuition that our real problems are, for the greater part, with overuse.)

In situations such as that shown by Figure 2, and in which the standard deviation is close to the mean, indicating a good approximation to an exponential distribution, a method other than the Chebycheff Inequality, and more finely tuned, is available. Tables are available to aid in the parameter setting. Roughly, in this instance the frequency distribution that is exponential would be interpreted as a probability curve, and one would set exceptions by selecting providers on the basis that their chances of giving more than 0.83 shots per office visit are greater than some x percentage.

A system improvement that would obviate this is the production of exceptions on a percentile basis. This is intuitively more satisfying to the average user than the sort of manipulations shown above. Here one would ask for the "top ten percent" say, of providers on a particular item. Knowing the number of exceptions in this case is simple: 0.10 X 8,000 is 800. Clearly, one would want something like the 98th percentile; this would give only (!) 160 exceptions.

A point to note is that when the system is operating properly even using the two-standard-deviation upper limit, under 1% of the providers in the class group except on a typical item. As a display of the typical exception experience in a number of States for physicians, hospitals, and pharmacies, Charts 1-34 in Appendix 2 are included. The data are from ca. June 1976 exception runs. For most items, the data shown are from ca. January 1976. This is to allow time for most billings for the time period involved to be submitted so that S/URS, which draws data from the MMIS' paid claims file, would have representative data for the whole population to work from. The point of the examples is that although the control of exception volume does not have to be trial-and-error, which is costly in computer time and staff staff time both, it can be guided by some statistical procedures. At the same time, as the charts show such methods are not needed except in problem cases.

APPENDIX 2

Representative Physician Exception Experience: Urban General Practice Common Report Items[1,2]

1) TOTAL PAYMENTS	ARKANSAS	MICHIGAN[5]	MINNESOTA	OHIO
Average	$1,397.25	$4,054.14	$1,199.59	$1,770.14
Standard Deviation	$2,168.62	$6,928.98	$1,733.97	$5,205.96
Exception Control Limit (Upper)	$5,734.00[3]	$25,000.00	$15,000.00	$15,000.00
No. of Exceptions	15	17	3	35
No. of Providers	395	1065	1124	1806
% Providers with Exceptions in this Category	3.79%	1.59%	0.26%	1.94%

[1]Data resulting from one exception processing in a class grouping in one quarter of 1976.

[2]Only report items selected for exception processing by at least two States in at least one quarter of 1976 are shown.

[3]Exception Limit = Avg. + 2 S.D.

[4]Exception Control Limit = Avg. + 3 S.D.

[5]For Michigan, Urban General Practice = General Practice in Detroit Metropolitan area.

Representative Physician Exception Experience: Urban General Practice Common Report Items[1,2]

2) TOTAL RECIPIENTS	ARKANSAS	MICHIGAN	MINNESOTA	OHIO
Average	52.25	120.00	39.31	69.41
Standard Deviation	96.84	196.12	46.24	172.96
Exception Control Limit (Upper)	245[3]	1000	1000	1000
No. of Exceptions	13	9	0	11
No. of Providers	395	1065	1124	1806
% Providers with Exceptions in this Category	3.29%	0.84%	0.00%	.61%

[1]Data resulting from one exception processing in a class grouping in one quarter of 1976.

[2]Only report items selected for exception processing by at least two States in at least one quarter of 1976 are shown.

[3]Exception Limit = Avg. + 2 S.D.

[4]Exception Control Limit = Avg. + 3 S.D.

[5]For Michigan, Urban General Practice = General Practice in Detroit Metropolitan area.

Representative Physician Exception Experience: Urban General Practice Common Report Items[1,2]

3) AVG. NO. OF VISITS/RECIPIENT	ARKANSAS	MICHIGAN	MINNESOTA	OHIO
Average	2.97	2.20	4.24	2.26
Standard Deviation	3.30	1.58	14.64	1.72
Exception Control Limit (Upper)	9.57[3]	3.50	33.52[3]	5.70[3]
No. of Exceptions	1	49	2	12
No. of Providers	395	1065	1124	1806
% Providers with Exceptions in this Category	0.25%	4.60%	0.18%	0.66%

[1] Data resulting from one exception processing in a class grouping in one quarter of 1976.

[2] Only report items selected for exception processing by at least two States in at least one quarter of 1976 are shown.

[3] Exception Limit = Avg. + 2 S.D.

[4] Exception Control Limit = Avg. + 3 S.D.

[5] For Michigan, Urban General Practice = General Practice in Detroit Metropolitan area.

Representative Physician Exception Experience: Urban General Practice Common Report Items[1,2]

4) AVG. PAYMENT/RECIPIENT	ARKANSAS	MICHIGAN	MINNESOTA	OHIO
Average	$58.63	$36.02	$32.88	$32.00
Standard Deviation	$93.16	$29.33	$34.90	$34.59
Exception Control Limit (Upper)	$244.95[3]	$100.00	$137.58[4]	$106.35
No. of Exceptions	3	19	2	13
No. of Providers	395	1065	1124	1806
% Providers with Exceptions in this Category	0.76%	1.78%	0.18%	0.72%

[1] Data resulting from one exception processing in a class grouping in one quarter of 1976.

[2] Only report items selected for exception processing by at least two States in at least one quarter of 1976 are shown.

[3] Exception Limit = Avg. + 2 S.D.

[4] Exception Control Limit = Avg. + 3 S.D.

[5] For Michigan, Urban General Practice = General Practice in Detroit Metropolitan area.

Chart 4

Representative Physician Exception Experience: Urban General Practice Common Report Items[1,2]

5) OFFICE VISITS/OFFICE PATIENT	ARKANSAS	MICHIGAN	MINNESOTA	OHIO
Average	0.59	1.99	2.82	1.90
Standard Deviation	31.40	1.30	6.92	1.15
Exception Control Limit (Upper)	2.71	3.10	16.66[3]	4.20[3]
No. of Exceptions	2	39	0	12
No. of Providers	395	1065	1124	1806
% Providers with Exceptions in this Category	0.51%	3.66%	0.00%	0.66%

[1] Data resulting from one exception processing in a class grouping in one quarter of 1976.

[2] Only report items selected for exception processing by at least two States in at least one quarter of 1976 are shown.

[3] Exception Limit = Avg. + 2 S.D.

[4] Exception Control Limit = Avg. + 3 S.D.

[5] For Michigan, Urban General Practice = General Practice in Detroit Metropolitan area.

Representative Physician Exception Experience: Urban General Practice Common Report Items[1,2]

6) LTC VISITS/LTCF PATIENT	ARKANSAS	MICHIGAN	MINNESOTA	OHIO
Average	1.83	N/A[6]	7.51	3.38
Standard Deviation	2.90	N/A	10.34	4.23
Exception Control Limit (Upper)	7.63[3]	3.00	28.19[3]	11.84[3]
No. of Exceptions	1	7	3	0
No. of Providers	395	1065	1124	1806
% Providers with Exceptions in this Category	0.25%	0.65%	0.26%	0.00%

[1] Data resulting from one exception processing in a class grouping in one quarter of 1976.

[2] Only report items selected for exception processing by at least two States in at least one quarter of 1976 are shown.

[3] Exception Limit = Avg. + 2 S.D.

[4] Exception Control Limit = Avg. + 3 S.D.

[5] For Michigan, Urban General Practice = General Practice in Detroit Metropolitan area.

[6] Data not available (parameter definition not equivalent, no exception run, etc.).

Representative Physician Exception Experience: Urban General Practice Common Report Items[1,2]

7) % INITIAL OFFICE VISITS	ARKANSAS	MICHIGAN	MINNESOTA	OHIO
Average	34.71	N/A[6]	21.21	18.36
Standard Deviation	34.20	N/A	26.65	22.97
Exception Control Limit (Upper)	103.11[3]	92	74.51[3]	64.30[3]
No. of Exceptions	0	13	1	6
No. of Providers	395	1065	1124	1806
% Providers with Exceptions in this Category	0.00%	1.22%	0.09%	0.33%

[1]Data resulting from one exception processing in a class grouping in one quarter of 1976.

[2]Only report items selected for exception processing by at least two States in at least one quarter of 1976 are shown.

[3]Exception Limit = Avg. + 2 S.D.

[4]Exception Control Limit = Avg. + 3 S.D.

[5]For Michigan, Urban General Practice = General Practice in Detroit Metropolitan area.

[6]Data not available (parameter definition not equivalent, no exception run, etc.).

Representative Physician Exception Experience: Urban General Practice Common Report Items[1,2]

8) MAX. NO. OFFICE VISITS/1 DAY	ARKANSAS	MICHIGAN	MINNESOTA	OHIO
Average	N/A[6]	12.33	3.74	5.37
Standard Deviation	N/A	36.35	2.84	10.22
Exception Control Limit (Upper)	N/A	40	15	46
No. of Exceptions	N/A	(24)	9	16
No. of Providers	395	1065	1124	1806
% Providers with Exceptions in this Category	N/A	2.25%	0.80%	0.89%

[1]Data resulting from one exception processing in a class grouping in one quarter of 1976.

[2]Only report items selected for exception processing by at least two States in at least one quarter of 1976 are shown.

[3]Exception Limit = Avg. + 2 S.D.

[4]Exception Control Limit = Avg. + 3 S.D.

[5]For Michigan, Urban General Practice = General Practice in Detroit Metropolitan area.

[6]Data not available (parameter definition not equivalent, no exception run, etc.).

Representative Physician Exception Experience: Urban General Practice Common Report Items[1,2]

9) RATIO DIAG. RAD./ALL PATIENTS	ARKANSAS	MICHIGAN	MINNESOTA	OHIO
Average	0.22	0.11	0.27	0.24
Standard Deviation	0.24	0.25	0.79	0.38
Exception Control Limit (Upper)	0.70[3]	1.00	1.85[3]	1.00[3]
No. of Exceptions	1	7	3	2
No. of Providers	395	1065	1124	1806
% Providers with Exceptions in this Category	0.25%	0.66%	0.27%	0.12%

[1]Data resulting from one exception processing in a class grouping in one quarter of 1976.

[2]Only report items selected for exception processing by at least two States in at least one quarter of 1976 are shown.

[3]Exception Limit = Avg. + 2 S.D.

[4]Exception Control Limit = Avg. + 3 S.D.

[5]For Michigan, Urban General Practice = General Practice in Detroit Metropolitan area.

Representative Physician Exception Experience: Urban General Practice Common Report Items[1,2]

10) AVG. NO. INJ./OFFICE PATIENT	ARKANSAS	MICHIGAN	MINNESOTA	OHIO
Average	0.47	N/A[6]	N/A[6]	0.83
Standard Deviation	0.75	N/A	N/A	1.13
Exception Control Limit (Upper)	NONE	N/A	N/A	3.09[3]
No. of Exceptions	NONE	N/A	N/A	12
No. of Providers	395	N/A	N/A	1806
% Providers with Exceptions in this Category	N/A[6]	N/A	N/A	0.66%

[1]Data resulting from one exception processing in a class grouping in one quarter of 1976.

[2]Only report items selected for exception processing by at least two States in at least one quarter of 1976 are shown.

[3]Exception Limit = Avg. + 2 S.D.

[4]Exception Control Limit = Avg. + 3 S.D.

[5]For Michigan, Urban General Practice = General Practice in Detroit Metropolitan area.

[6]Data not available (parameter definition not equivalent, no exception run, etc.).

Representative Physician Exception Experience: Urban General Practice Common Report Items[1,2]

11) RATIO OF INJ./OFFICE VISIT	ARKANSAS	MICHIGAN	MINNESOTA	OHIO
Average	0.57	N/A[6]	0.12	0.43
Standard Deviation	1.19	N/A	0.17	0.38
Exception Control Limit (Upper)	N/A[4]	N/A	0.46[3]	1.19[3]
No. of Exceptions	N/A	N/A	1	12
No. of Providers	395	N/A	1124	1806
% Providers with Exceptions in this Category	N/A	N/A	0.09%	0.67%

[1] Data resulting from one exception processing in a class grouping in one quarter of 1976.

[2] Only report items selected for exception processing by at least two States in at least one quarter of 1976 are shown.

[3] Exception Limit = Avg. + 2 S.D.

[4] Exception Control Limit = Avg. + 3 S.D.

[5] For Michigan, Urban General Practice = General Practice in Detroit Metropolitan area.

[6] Data not available (parameter definition not equivalent, no exception run, etc.).

Representative Physician Exception Experience: Urban General Practice Common Report Items[1,2]

12) % OF PRIOR-AUTH. PAYMENTS	ARKANSAS	MICHIGAN	MINNESOTA	OHIO
Average	N/A	N/A[6]	0	21.80
Standard Deviation	N/A	N/A	0	34.08
Exception Control Limit (Upper)	0	N/A	0	89.96[3]
No. of Exceptions	0	N/A	0	0
No. of Providers	395	N/A	1124	1806
% Providers with Exceptions in this Category	0.00%	N/A	0.00%	0.00%

[1]Data resulting from one exception processing in a class grouping in one quarter of 1976.

[2]Only report items selected for exception processing by at least two States in at least one quarter of 1976 are shown.

[3]Exception Limit = Avg. + 2 S.D.

[4]Exception Control Limit = Avg. + 3 S.D.

[5]For Michigan, Urban General Practice = General Practice in Detroit Metropolitan area.

[6]Data not available (parameter definition not equivalent, no exception run, etc.).

Representative Pharmacy Exception Experience: General Pharmacies Comma Report Items[1,2]

1) TOTAL PAYMENTS	MICHIGAN	MINNESOTA	OHIO
Average	$6,144.53	$4,182.34	$5,189.59
Standard Deviation	$5,515.08	$9,662.47	$9,090.93
Exception Control Limit (Upper)	$25,000.00	$20,000.00	$20,000.00
No. of Exceptions	44	20	92
No. of Providers	1536	1118	2027
% Providers with Exceptions for this report item	2.86	1.78	4.53

[1] Data resulting from one exception processing in a class grouping in one quarter of 1976.

[2] Only report items selected for exception processing by at least two States in at least one quarter of 1976 are shown.

[3] Exception Limit = Avg. + 2 S.D.

[4] Exception Control Limit = Avg. + 3 S.D.

Chart 13

Representative Pharmacy Exception Experience: General Pharmacies Common Report Items[1,2]

2) TOTAL RECIPIENTS SERVED	MICHIGAN	MINNESOTA	OHIO
Average	300.00	122.44	213.71
Standard Deviation	415.81	180.06	334.84
Exception Control Limit (Upper)	1000	1000	1000
No. of Exceptions	75	7	59
No. of Providers	1536	1118	2027
% Providers with Exceptions for this report item	4.88	0.62	2.91

[1] Data resulting from one exception processing in a class grouping in one quarter of 1976.

[2] Only report items selected for exception processing by at least two States in at least one quarter of 1976 are shown.

[3] Exception Limit = Avg. + 2 S.D.

[4] Exception Control Limit = Avg. + 3 S.D.

Chart 14

Representative Pharmacy Exception Experience: General Pharmacies Common Report Items[1,2]

3) AVG. PAYMENT/RECIPIENT	MICHIGAN	MINNESOTA	OHIO
Average	$21.73	$33.76	$23.54
Standard Deviation	$9.97	$21.43	$14.12
Exception Control Limit (Upper)	$35.00	$98.05[4]	$65.90[4]
No. of Exceptions	75	3	36
No. of Providers	1536	1118	2027
% Providers with Exceptions for this report item	4.88	0.26	1.77

[1] Data resulting from one exception processing in a class grouping in one quarter of 1976.

[2] Only report items selected for exception processing by at least two States in at least one quarter of 1976 are shown.

[3] Exception Limit = Avg. + 2 S.D.

[4] Exception Control Limit = Avg. + 3 S.D.

Chart 15

Representative Pharmacy Exception Experience: General Pharmacies Common Report Items[1,2]

a) AVG. NO. RX/RECIPIENT	MICHIGAN	MINNESOTA	OHIO
Average	4.03	5.64	4.38
Standard Deviation	1.73	3.51	2.46
Exception Control Limit (Upper)	6.00	16.17[4]	11.76[4]
No. of Exceptions	89	8	39
No. of Providers	1536	1118	2027
% Providers with Exceptions for this report item	5.79	0.71	1.92

[1] Data resulting from one exception processing in a class grouping in one quarter of 1976.

[2] Only report items selected for exception processing by at least two States in at least one quarter of 1976 are shown.

[3] Exception Limit = Avg. + 2 S.D.

[4] Exception Control Limit = Avg. + 3 S.D.

Representative Pharmacy Exception Experience: General Pharmacies Common Report Items[1,2]

5) AVG. PAYMENT/RX	MICHIGAN	MINNESOTA	OHIO
Average	-	$5.94	$5.31
Standard Deviation	-	$1.31	$0.80
Exception Control Limit (Upper)	-	$6.50	$8.00
No. of Exceptions	-	96	7
No. of Providers	-	1115	2027
% Providers with Exceptions for this report item	-	8.58	0.34

[1] Data resulting from one exception processing in a class grouping in one quarter of 1976.

[2] Only report items selected for exception processing by at least two States in at least one quarter of 1976 are shown.

[3] Exception Limit = Avg. + 2 S.D.

[4] Exception Control Limit = Avg. + 3 S.D.

Representative Pharmacy Exception Experience: General Pharmacies Common Report Items

6) % RECTR. WITH ADDICTIVE DRUG RX	MICHIGAN	MINNESOTA	OHIO
Average	6.58	6.81	8.78
Standard Deviation	4.94	5.98	6.33
Exception Control Limit (Upper)	16.47	18.77[3]	21.44[3]
No. of Exceptions	0	1	7
No. of Providers	1536	1118	2027
% Providers with Exceptions for this report item	0	0.09	0.34

[1] Data resulting from one exception processing in a class grouping in one quarter of 1976.

[2] Only report items selected for exception processing by at least two States in at least one quarter of 1976 are shown.

[3] Exception Limit = Avg. + 2 S.D.

[4] Exception Control Limit = Avg. + 3 S.D.

Representative Hospital Exception Experience: Common Report Items[1,2]

1) TOTAL DOLLARS PAID	MICHIGAN	MINNESOTA	OHIO
Average	$221,569.81	$56,565.27	$100,683.75
Standard Deviation	$285,488.76	$164,625.75	$246,977.50
Exception Control Limit (Upper)	$792,547.00	$550,442.00	$841,616.00
No. of Exceptions	N/A[7]	3	4
No. of Providers	31	373	596
% Providers with Exceptions in this Category	N/A	0.80%	0.67%

[1] Data resulting from one exception processing in a category in one quarter of 1976. (See Note 6)

[2] Only categories selected for exception processing by at least two States in at least one quarter of 1976 are shown. (See Notes 6 and 7)

[3] Exception Limit = Avg. + 2 S.D.

[4] Exception Control Limit = Avg. + 3 S.D.

[5] Data shown for Michigan are for class group: Inpatient Hospitals with Teaching Program having over 300 beds. Data for Minnesota and Ohio are for class group: All Hospitals.

[6] Not selected for exception processing by any State shown - data presented for comparison purposes only.

[7] Not selected for exception processing by State shown.

Representative Hospital Exception Experience: Common Report Items[1,2]

2) TOTAL RECIPIENTS SERVED	MICHIGAN	MINNESOTA	OHIO
Average	293.26	60.97	117.00
Standard Deviation	252.83	117.22	198.96
Exception Control Limit (Upper)	798[3]	530	912
No. of Exceptions	N/A[7]	3	5
No. of Providers	31	373	596
% Providers with Exceptions in this Category	N/A	0.80%	0.83%

[1] Data resulting from one exception processing in a category in one quarter of 1976. (See Note 6)

[2] Only categories selected for exception processing by at least two States in at least one quarter of 1976 are shown. (See Notes 6 and 7)

[3] Exception Limit = Avg. + 2 S.D.

[4] Exception Control Limit = Avg. + 3 S.D.

[5] Data shown for Michigan are for class group: Inpatient Hospitals with Teaching Program having over 300 beds. Data for Minnesota and Ohio are for class group: All Hospitals.

[6] Not selected for exception processing by any State shown - data presented for comparison purposes only.

[7] Not selected for exception processing by State shown.

Representative Hospital Exception Experience: Common Report Items[1,2]

3) AVG. PAYMENT/PATIENT-DAY[6]	MICHIGAN	MINNESOTA	OHIO
Average	$114.16	$77.90	$123.18
Standard Deviation	$57.36	$51.55	$62.20
Exception Control Limit (Upper)	$228.89[3]	$181.00[3]	$252.74[3]
No. of Exceptions	N/A	N/A	N/A
No. of Providers	31	373	596
% Providers with Exceptions in this Category	N/A	N/A	N/A

[1] Data resulting from one exception processing in a category in one quarter of 1976. (See Note 6)

[2] Only categories selected for exception processing by at least two States in at least one quarter of 1976 are shown. (See Notes 6 and 7)

[3] Exception Limit = Avg. + 2 S.D.

[4] Exception Control Limit = Avg. + 3 S.D.

[5] Data shown for Michigan are for class group: Inpatient Hospitals with Teaching Program having over 300 beds. Data for Minnesota and Ohio are for class group: All Hospitals.

[6] Not selected for exception processing by any State shown - data presented for comparison purposes only.

[7] Not selected for exception processing by State shown.

Representative Hospital Exception Experience: Common Report Items[1,2]

4. AVG. PAYMENT/RECIPIENT	MICHIGAN	MINNESOTA	OHIO
Average	$862.41	$733.17	$969.86
Standard Deviation	$513.49	$1,828.55	$920.21
Exception Control Limit (Upper)	$1,889.41[3]	$1,720.84	$2,810.28[3]
No. of Exceptions	N/A[7]	2	3
No. of Providers	31	373	596
% Providers with Exceptions in this Category	N/A	0.54%	0.50%

[1] Data resulting from one exception processing in a category in one quarter of 1976. (See Note 6)

[2] Only categories selected for exception processing by at least two States in at least one quarter of 1976 are shown. (See Notes 6 and 7)

[3] Exception Limit = Avg. + 2 S.D.

[4] Exception Control Limit = Avg. + 3 S.D.

[5] Data shown for Michigan are for class group: Inpatient Hospitals with Teaching Program having over 300 beds. Data for Minnesota and Ohio are for class group: All Hospitals.

[6] Not selected for exception processing by any State shown - data presented for comparison purposes only.

[7] Not selected for exception processing by State shown.

Representative Hospital Exception Experience: Common Report Items[1,2]

5) % DISCHARGES-1 DAY	MICHIGAN	MINNESOTA	OHIO
Average	10.32	22.19	16.88
Standard Deviation	9.59	20.92	23.02
Exception Control Limit (Upper)	10	16.00	18.00
No. of Exceptions	12	23	10
No. of Providers	31	373	596
% Providers with Exceptions in this Category	38.71%	6.16%	1.68%

[1] Data resulting from one exception processing in a category in one quarter of 1976. (See Note 6)

[2] Only categories selected for exception processing by at least two States in at least one quarter of 1976 are shown. (See Notes 6 and 7)

[3] Exception Limit = Avg. + 2 S.D.

[4] Exception Control Limit = Avg. + 3 S.D.

[5] Data shown for Michigan are for class group: Inpatient Hospitals with Teaching Program having over 300 beds. Data for Minnesota and Ohio are for class group: All Hospitals.

[6] Not selected for exception processing by any State shown - data presented for comparison purposes only.

[7] Not selected for exception processing by State shown.

Representative Hospital Exception Experience: Common Report Items[1,2]

6) % DISCHARGES-2 DAYS	MICHIGAN	MINNESOTA	OHIO
Average	11.92	25.79	20.71
Standard Deviation	6.77	20.56	20.03
Exception Control Limit (Upper)	25.46	25.00	25.00
No. of Exceptions	N/A[7]	14	6
No. of Providers	31	373	596
% Providers with Exceptions in this Category	N/A	3.75%	1.00%

[1] Data resulting from one exception processing in a category in one quarter of 1976. (See Note 6)

[2] Only categories selected for exception processing by at least two States in at least one quarter of 1976 are shown. (See Notes 6 and 7)

[3] Exception Limit = Avg. + 2 S.D.

[4] Exception Control Limit = Avg. + 3 S.D.

[5] Data shown for Michigan are for class group: Inpatient Hospitals with Teaching Program having over 300 beds. Data for Minnesota and Ohio are for class group: All Hospitals.

[6] Not selected for exception processing by any State shown - data presented for comparison purposes only.

[7] Not selected for exception processing by State shown.

Representative Hospital Exception Experience: Common Report Items[1,2]

7) % DISCHARGES 3-5 DAYS	MICHIGAN	MINNESOTA	OHIO
Average	31.06	41.38	44.72
Standard Deviation	14.65	19.86	23.07
Exception Control Limit (Upper)	60.37	60.00	60.00
No. of Exceptions	N/A[7]	2	0
No. of Providers	31	373	596
% Providers with Exceptions in this Category	N/A	0.53%	0.00%

[1] Data resulting from one exception processing in a category in one quarter of 1976. (See Note 6)

[2] Only categories selected for exception processing by at least two States in at least one quarter of 1976 are shown. (See Notes 6 and 7)

[3] Exception Limit = Avg. + 2 S.D.

[4] Exception Control Limit = Avg. + 3 S.D.

[5] Data shown for Michigan are for class group: Inpatient Hospitals with Teaching Program having over 300 beds. Data for Minnesota and Ohio are for class group: All Hospitals.

[6] Not selected for exception processing by any State shown - data presented for comparison purposes only.

[7] Not selected for exception processing by State shown.

Representative Hospital Exception Experience: Common Report Items[1,2]

8) % DISCHARGES 6-8 DAYS	MICHIGAN	MINNESOTA	OHIO
Average	19.89	19.74	22.86
Standard Deviation	12.57	16.12	19.99
Exception Control Limit (Upper)	45.04[3]	45.00	50.00
No. of Exceptions	N/A[7]	0	0
No. of Providers	31	373	596
% Providers with Exceptions in this Category	N/A	0.00%	0.00%

[1] Data resulting from one exception processing in a category in one quarter of 1976. (See Note 6)

[2] Only categories selected for exception processing by at least two States in at least one quarter of 1976 are shown. (See Notes 6 and 7)

[3] Exception Limit = Avg. + 2 S.D.

[4] Exception Control Limit = Avg. + 3 S.D.

[5] Data shown for Michigan are for class group: Inpatient Hospitals with Teaching Program having over 300 beds. Data for Minnesota and Ohio are for class group: All Hospitals.

[6] Not selected for exception processing by any State shown - data presented for comparison purposes only.

[7] Not selected for exception processing by State shown.

Representative Hospital Exception Experience: Common Report Items[1,2]

8) % DISCHARGES 16-30 DAYS	MICHIGAN[8]	MINNESOTA	OHIO
Average	3.40	10.93	10.46
Standard Deviation	5.96	16.21	16.10
Exception Control Limit (Upper)	15.33	20.00	20.00
No. of Exceptions	N/A[7]	0	0
No. of Providers	31	373	596
% Providers with Exceptions in this Category	N/A	0.00%	0.00%

[1] Data resulting from one exception processing in a category in one quarter of 1976. (See Note 6)

[2] Only categories selected for exception processing by at least two States in at least one quarter of 1976 are shown. (See Notes 6 and 7)

[3] Exception Limit = Avg. + 2 S.D.

[4] Exception Control Limit = Avg. + 3 S.D.

[5] Data shown for Michigan are for class group: Inpatient Hospitals with Teaching Program having over 300 beds. Data for Minnesota and Ohio are for class group: All Hospitals.

[6] Not selected for exception processing by any State shown - data presented for comparison purposes only.

[7] Not selected for exception processing by State shown.

[8] Closest item defined in Michigan = 18-23 days.

Representative Hospital Exception Experience: Common Report Items[1,2]

10) % DISCHARGES 31 DAYS UP	MICHIGAN[9]	MINNESOTA	OHIO
Average	1.41	11.96	7.69
Standard Deviation	1.98	15.12	18.09
Exception Control Limit (Upper)	4.00	25.00	25.00
No. of Exceptions	3	6	2
No. of Providers	31	373	596
% Providers with Exceptions in this Category	9.68%	1.61%	0.33%

[1]Data resulting from one exception processing in a category in one quarter of 1976. (See Note 6)

[2]Only categories selected for exception processing by at least two States in at least one quarter of 1976 are shown. (See Notes 6 and 7)

[3]Exception Limit = Avg. + 2 S.D.

[4]Exception Control Limit = Avg. + 3 S.D.

[5]Data shown for Michigan are for class group: Inpatient Hospitals with Teaching Program having over 300 beds. Data for Minnesota and Ohio are for class group: All Hospitals.

[6]Not selected for exception processing by any State shown - data presented for comparison purposes only.

[7]Not selected for exception processing by State shown.

[8]Closest item defined in Michigan = 13-20 days.

[9]Item is calculated for stays 30 days and over

Chart 28

Representative Hospital Exception Experience: Common Report Items[1,2]

11) % SUN.-MON. DISCHARGES	MICHIGAN	MINNESOTA	OHIO
Average	18.38	30.54	29.12
Standard Deviation	9.85	22.88	21.43
Exception Control Limit (Upper)	30.00	76.30[3]	71.98[3]
No. of Exceptions	2	0	0
No. of Providers	31	373	596
% Providers with Exceptions in this Category	5.45%	0.00%	0.00%

[1] Data resulting from one exception processing in a category in one quarter of 1976. (See Note 6)

[2] Only categories selected for exception processing by at least two States in at least one quarter of 1976 are shown. (See Notes 6 and 7)

[3] Exception Limit = Avg. + 2 S.D.

[4] Exception Control Limit = Avg. + 3 S.D.

[5] Data shown for Michigan are for class group: Inpatient Hospitals with Teaching Program having over 300 beds. Data for Minnesota and Ohio are for class group: All Hospitals.

[6] Not selected for exception processing by any State shown - data presented for comparison purposes only.

[7] Not selected for exception processing by State shown.

Representative Hospital Exception Experience: Common Report Items[1,2]

12) % DISCHARGES TO LTCF	MICHIGAN	MINNESOTA	OHIO
Average	N/A	1.78	3.87
Standard Deviation	N/A	2.49	8.74
Exception Control Limit (Upper)	N/A	6.76[3]	21.35[3]
No. of Exceptions	N/A	1	0
No. of Providers	N/A	373	596
% Providers with Exceptions in this Category	N/A	0.27%	0.00%

[1] Data resulting from one exception processing in a category in one quarter of 1976. (See Note 6)

[2] Only categories selected for exception processing by at least two States in at least one quarter of 1976 are shown. (See Notes 6 and 7)

[3] Exception Limit = Avg. + 2 S.D.

[4] Exception Control Limit = Avg. + 3 S.D.

[5] Data shown for Michigan are for class group: Inpatient Hospitals with Teaching Program having over 300 beds. Data for Minnesota and Ohio are for class group: All Hospitals.

[6] Not selected for exception processing by any State shown - data presented for comparison purposes only.

[7] Not selected for exception processing by State shown.

Representative Hospital Exception Experience: Common Report Items[1,2]

181 % DISCHARGES WITH SURGERY	MICHIGAN	MINNESOTA	OHIO
Average	N/A	37.29	20.07
Standard Deviation	N/A	21.44	32.13
Exception Control Limit (Upper)	N/A	70	70
No. of Exceptions	N/A	0	7
No. of Providers	N/A	373	596
% Providers with Exceptions in this Category	N/A	0.00%	1.17%

[1] Data resulting from one exception processing in a category in one quarter of 1976. (See Note 6)

[2] Only categories selected for exception processing by at least two States in at least one quarter of 1976 are shown. (See Notes 6 and 7)

[3] Exception Limit = Avg. + 2 S.D.

[4] Exception Control Limit = Avg. + 3 S.D.

[5] Data shown for Michigan are for class group: Inpatient Hospitals with Teaching Program having over 300 beds. Data for Minnesota and Ohio are for class group: All Hospitals.

[6] Not selected for exception processing by any State shown - data presented for comparison purposes only.

[7] Not selected for exception processing by State shown.

Representative Hospital Exception Experience: Common Report Items[1,2]

14) % FRIDAY/SATURDAY ADMISSIONS	MICHIGAN	MINNESOTA	OHIO
Average	24.10	27.60	32.13
Standard Deviation	17.06	22.07	25.19
Exception Control Limit (Upper)	30.00	35.00	35.00
No. of Exceptions	4	4	1
No. of Providers	31	373	596
% Providers with Exceptions in this Category	12.90%	1.07%	0.16%

[1] Data resulting from one exception processing in a category in one quarter of 1976. (See Note 6)

[2] Only categories selected for exception processing by at least two States in at least one quarter of 1976 are shown. (See Notes 6 and 7)

[3] Exception Limit = Avg. + 2 S.D.

[4] Exception Control Limit = Avg. + 3 S.D.

[5] Data shown for Michigan are for class group: Inpatient Hospitals with Teaching Program having over 300 beds. Data for Minnesota and Ohio are for class group: All Hospitals.

[6] Not selected for exception processing by any State shown - data presented for comparison purposes only.

[7] Not selected for exception processing by State shown.

Representative Hospital Exception Experience: Common Report Items[1,2]

15% AVG. DAYS STAY/DISCHARGE	MICHIGAN	MINNESOTA	OHIO
Average	7.48	24.43	7.78
Standard Deviation	2.67	59.00	7.73
Exception Control Limit (Upper)	8.50	25.00	23.24[3]
No. of Exceptions	4	12	0
No. of Providers	31	373	596
% Providers with Exceptions in this Category	12.90%	3.22%	N/A

[1] Data resulting from one exception processing in a category in one quarter of 1976. (See Note 6)

[2] Only categories selected for exception processing by at least two States in at least one quarter of 1976 are shown. (See Notes 6 and 7)

[3] Exception Limit = Avg. + 2 S.D.

[4] Exception Control Limit = Avg. + 3 S.D.

[5] Data shown for Michigan are for class group: Inpatient Hospitals with Teaching Program having over 300 beds. Data for Minnesota and Ohio are for class group: All Hospitals.

[6] Not selected for exception processing by any State shown - data presented for comparison purposes only.

[7] Not selected for exception processing by State shown.

Representative Hospital Exception Experience: Common Report Items[1,2]

16) % DAYS IN ICU[6]	MICHIGAN	MINNESOTA	OHIO
Average	2.81	5.92	5.01
Standard Deviation	3.53	5.83	12.44
Exception Control Limit (Upper)	9.88	17.56	30.11
No. of Exceptions	N/A	N/A	N/A
No. of Providers	31	373	596
% Providers with Exceptions in this Category	N/A	N/A	N/A

[1] Data resulting from one exception processing in a category in one quarter of 1976. (See Note 6)

[2] Only categories selected for exception processing by at least two States in at least one quarter of 1976 are shown. (See Notes 6 and 7)

[3] Exception Limit = Avg. + 2 S.D.

[4] Exception Control Limit = Avg. + 3 S.D.

[5] Data shown for Michigan are for class group: Inpatient Hospitals with Teaching Program having over 300 beds. Data for Minnesota and Ohio are for class group: All Hospitals.

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[7] Not selected for exception processing by State shown.

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